HEALTHY LIVING, HEALTHY MINDS: A TOOLKIT FOR HEALTH PROFESSIONALS

Promoting Healthy Living in Children and Youth with Mental Health Challenges





Developed by:







Foreword

Dear colleagues,

We are pleased to present you with the *Healthy Living*, *Healthy Minds: A Toolkit* for *Health Professionals*. This toolkit is one component of a larger initiative that aims to encompass the full health continuum from specialized care through to health promotion in addressing an identified gap in the provision of care for children and youth with mental health challenges – namely, recognizing and overcoming obstacles to healthy living that are prevalent within this population.

Through a combination of our recent research initiatives, ongoing medical practice and the development of a provincial mental health literacy strategy, we acquired an awareness of this gap. The development of a partnership between BC Children's Foundation and the Royal Bank of Canada (RBC), with additional financial support from the Provincial Health Services Authority (PHSA) Centres for Population and Public Health and the Lawson Foundation, has allowed us to realize our vision and address these gaps.

We hope that this toolkit will be a useful resource for you as you support and promote healthy living in the children and youth you see in your practice.

JANA DAVIDSON, MD, FRCPC

Vice President Medical Affairs and Psychiatrist in Chief, Children's and Women's Mental Health Programs, Children's and Women's Health Centre of BC DINA PANAGIOTOPOULOS, MD, FRCPC

Project Co-lead
Associate Professor,
University of British Columbia
Endocrinologist,
BC Children's Hospital;
CFRI & CDA Clinician Scientist*

CONNIE CONIGLIO, ED.D., R.PSYCH

Provincial Executive Director, Children's and Women's Mental Health and Substance Use Programs, BC Mental Health & Addiction Services

*Dr. Dina Panagiotopoulos receives salary awards from the Child and Family Research Institute (CRFI) and the Canadian Diabetes Association (CDA)

COMMISSION OF CA SANTÉ MENTALE DI DE LA SANTÉ MENTALE DI DELL'ASSANTÉ MENTALE DI DELL'ASSANTÈ DELL'AS

March 10, 2011

Mental health challenges affect between 15-20% of children and youth in Canada. Children and youth with mental health issues face unique barriers to healthy living due to the symptoms of their illness, the medication they are on, or the stigma they may face, not to mention significant barriers to increasing services.

Having a healthy lifestyle not only *decreases* the risk of developing a number of chronic conditions, such as diabetes and heart disease, but can also *increase* both the physical and mental well-being of these children and youth, greatly improving the overall quality of their lives and the lives of those who support them.

Healthy Living, Healthy Minds: A Toolkit for Health Professionals was developed in collaboration with a diverse group of health professionals and families of children and youth with mental health challenges across BC. As a result, the Toolkit includes topics that health professionals have identified as important and relevant to their practice, concerns identified by families, and strategies that both families and professionals have found most helpful. This Toolkit equips health professionals with information, provides them with tools, and includes handouts that can be given to families for easy reference.

My congratulations to the team that has developed the Toolkit, and to the BC Children's Hospital and BC Mental Health & Addiction Services for supporting this important initiative. Above all, the engagement of professionals and families with lived experience establishing the relevance and content of the Toolkit makes this product even more useful.

The *Healthy Living, Healthy Minds* Toolkit is a valuable publication and a much needed resource. I strongly encourage health professionals across BC, and hopefully beyond, to use the Toolkit in their daily practice with children and youth with mental health challenges.

Sincerely,

Simon Davidson, M.B., B.Ch., F.R.C.P.(C)

Chair of the Child and Youth Advisory Committee, Mental Health Commission of Canada; Professor and Chair, Division of Child and Adolescent Psychiatry, University of Ottawa; Chief Strategic Planning Executive,

Ontario Centre of Excellence for Child and Youth Mental Health, Children's Hospital of Eastern Ontario.

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Sincerely,

 $\textbf{JANA DAVIDSON}, \, \mathsf{MD}, \, \mathsf{FRCPC}$

Project Co-lead

DINA PANAGIOTOPOULOS, MD, FRCPC

Project Co-lead

CONNIE CONIGLIO, ED.D., R.PSYCH

Project Co-lead

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THE LAWSON FOUNDATION

Project Coordinator

MICHELLE HORN, MPH

Project Manager Health Literacy, BCMHAS

Advisory Committee

ANDREW TUGWELL, MPH

Program Manager Health Literacy, BCMHAS

KELI ANDERSON

Executive Director
The F.O.R.C.E. Society for Kids'
Mental Health

NICOLE CHOVIL, PHD

Research & Evaluation Consultant The F.O.R.C.E. Society for Kids' Mental Health

MATT BLACKWOOD, MD, CCFP, FCFP

Family Physician Mission, B.C.

TOM WARSHAWSKI, MD, RCPSC

Head, Pediatrics Kelowna General Hospital

JANET CAMPBELL, MSW

Regional Child and Youth Mental Health Coordinator VCH Ministry of Child and Family Development

HING TSE, MSW

Manager Kelty Mental Health Resource Centre, BCMHAS

Module Authors

LORRIE CHOW, RD

Clinical Dietitian
Provincial Mental Health Metabolic
Program, BC Children's Hospital
(Healthy Eating Module)

MARCELLA PAOLETTI, BSC PT, BPHYSED

Healthy Living Coach Provincial Mental Health Metabolic Program, BC Children's Hospital (*Physical Activity Module*)

Module Contributors & Reviewers

PEI-YOONG LAM, MD, FRACP

Assistant Professor Division of Adolescent Medicine, Provincial Specialized Eating Disorders Program, BC Children's Hospital

JANE GARLAND, MD, FRCPC

Clinical Head Mood & Anxiety Disorders Clinic, BC Children's Hospital

Module Contributors & Reviewers

(continued)

ASIA MIAZGA, RD, CDE

Clinical Dietitian Endocrinology and Diabetes Program, BC Children's Hospital

MARGARET WEISS, MD, PHD, FRCP(C)

Clinic Head Provincial ADHD Program, BC Children's Hospital

NICOLE BRUCE, BSCOT

Occupational Therapist Outpatient Psychiatry, BC Children's Hospital

LEAH WILSON, RN, MSN(C)

Nurse Clinician Provincial Mental Health Metabolic Program, BC Children's Hospital

PROVINCIAL YOUTH CONCURRENT DISORDERS STAFF

BC Children's Hospital

DEAN ELBE, PHARMD, BCPP

Clinical Pharmacist
Child and Adolescent Psychiatry,
Children's & Women's Health
Centre of BC

TOM HETHERINGTON, MSW

Addiction Knowledge Exchange Leader BCMHAS

EMMA GIBSON, RPN

Nurse Clinician Child Psychiatry, BC Children's Hospital

BEN CHENG, MA(C)

Youth & Family Counsellor BC Children's Hospital

LESLIE CLOUGH, RN, MSN

Manager Patient & Family Education, BC Women's & Children's Hospital

BETTE REIMER, MLS

Research Associate Centre for Addiction Research of BC, University of Victoria

VIKRAM DUA, MD, FRCP(C)

Child and Adolescent Psychiatrist Associate Clinical Professor, University of British Columbia

KIT STANDISH, RN, MA

Clinical Nurse Coordinator Provincial Specialized Eating Disorders Program, BC Children's Hospital

HEATHER DURKIN, BHK, MOT

Occupational Therapist Provincial Specialized Eating Disorders Program, BC Children's Hospital

SHARI CLAREMONT, MD, CCFP

Family Physician Kelowna, B.C.

DZUNG X. VO, MD

Assistant Clinical Professor Division of Adolescent Medicine, BC Children's Hospital

ARLENE CRISTALL, MSC, RD

Program Coordinator
The Centre for Healthy Weights –
Shapedown BC, BC Children's Hospital

DEBBIE REID, MSC

Registered Dietitian Provincial Mental Health Metabolic Program, BC Children's Hospital

Introduction

HEALTHY LIVING AND MENTAL HEALTH - UNIQUE CONSIDERATIONS

The relationship between mental health and physical health is complex and bidirectional. For children and youth with mental health challenges, addressing lifestyle factors such as sleep, physical activity, nutrition and stress can positively impact not just their physical health, but their mental health as well.

Approximately 1 in 5 children and youth in B.C. experience mental health challenges sufficient to cause impairment in functioning. These children and youth often face unique challenges in developing healthy living habits. For instance, many children and youth experiencing mental health challenges are socially isolated and marginalized from physical activity, and are at risk for unhealthy eating habits. Additionally, children and youth with mental health challenges have higher rates of sleep problems, and overlapping symptoms have been found between stress and symptoms of anxiety and depression. Furthermore, some medications that children and youth with mental health conditions are prescribed may also cause challenges to healthy living.

An underlying assumption in this toolkit is that children and youth are influenced by the greater social, cultural and physical environments in which they live. In particular, the family is the context where "health is learned, lived, experienced".⁵ As such, and to the greatest extent possible, this toolkit addresses healthy living within the context of the family and the broader community, working from the strengths the family already possesses and helping them to confront any challenges they may face in their home, community, or environment.

ABOUT THE HEALTHY LIVING, HEALTHY MINDS: A TOOLKIT FOR HEALTH PROFESSIONALS

This toolkit provides information and resources for health professionals across B.C. to discuss healthy living specific to child and youth mental health. Acknowledging that many health professionals have limited time to discuss healthy living, the toolkit provides a time-sensitive approach to having this discussion. It is our hope that this toolkit provides a range of tips and resources that are relevant to a diverse array of health professionals, and offers an approach that supports and empowers children, youth and their families across B.C. to be able to make changes in their lives that will contribute to optimal physical and mental health and wellbeing.

The toolkit contains information on the unique challenges children and youth with mental health conditions may face to healthy living, assessment tools, and key messages for families within each healthy living area. It also contains developmentally-appropriate tools to help you collaboratively define attainable goals with children, youth and families, and a number of handouts that can be easily photocopied and given to children and youth within a visit.

A corresponding toolkit for families, "Healthy Living... It's in Everyone: A Guide to Healthy Living for Families who have a Child or Young Person Living with Mental Health Challenges" has also been developed, containing healthy living tips from families across B.C.

Toolkit Feedback

We value your input! Please take the time to provide us with your feedback, comments and suggestions:

Kelty Mental Health Resource Centre

BC Children's Hospital, 4500 Oak Street, Vancouver, B.C., Canada

Local Phone: 604-875-2084 Toll Free: 1-800-665-1822

Email: toolkits@keltymentalhealth.ca

Ordering Information

To order a print copy or to download a PDF of the *Healthy Living, Healthy Minds: A Toolkit for Health Professionals*, please visit:

keltymentalhealth.ca/toolkits

The *Guide to Healthy Living for Families* is also available to order or download from this webpage.

Disclaimer

The Healthy Living, Healthy Minds: A Toolkit for Health Professionals (the "Toolkit") is intended as an aid to health care professionals, when supporting children and youth with mental health conditions, to enable such persons to develop and maintain healthy living habits. The Toolkit is not intended as a substitute for the advice of an appropriate health care professional. If professional advice is required, the services of a competent and qualified professional should be sought. The Toolkit represents best practice at the time of publication, but practice standards may change as additional knowledge is gained. Decision making in a specific context remains the responsibility of attending professionals. Nothing contained in the Toolkit should in any way be construed as being either official or unofficial policy of British Columbia Mental Health Society Branch, Children's & Women's Health Centre of British Columbia Branch or Provincial Health Services Authority (together the "Societies").

Contact information and links to websites contained in the Toolkit are provided for convenience only. The Societies cannot guarantee that the information, links or content from these links remain current. Providing a contact or link does not mean that the Societies endorse the views, products or services that may be offered via the link. The Societies assume no responsibility or liability arising from any error in or omission of information, or from the use of any information, link, contact, opinion or advice provided in the Toolkit.

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Module **O1**Getting Started

MODULE 01 Getting Started

Having the Conversation



This section aims to provide you with general guidelines and a suggested approach to using the toolkit, tips to provide to parents/caregivers as they get started on this journey with their children, and additional resources

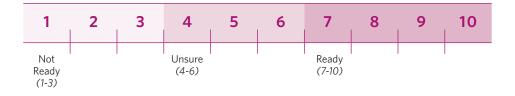
Healthy living is difficult for many people to begin and maintain. For children and adolescents experiencing mental health challenges, their symptoms, side effects from treatment, and attitudes from peers and their community can make healthy living especially difficult for both them and those supporting them. Additionally, some children and youth with mental health challenges may have difficulty communicating, concentrating, or remembering what you have said.¹ Recognizing and acknowledging these challenges is imperative when discussing healthy living with this population.

With unique barriers to healthy living confronting them on a daily basis, the small steps children, youth and their families make towards healthier lifestyles should be recognized and applauded.

READINESS FOR CHANGE

Even when the benefits of a healthy lifestyle are known, actually implementing these changes takes time and encouragement, and social and environmental factors that might influence behaviour must be taken into consideration. Change in behaviour occurs gradually through a series of stages and these changes can be difficult to maintain.^{2,3,4} The Stage of Change model has been found to be effective for facilitating healthy living behaviour change in children and youth.^{2,4,5} Readiness for change considerations specific to adolescents can be found in the resource section (under 'Adolescent Health Working Group').

To assess readiness for change, you could try asking the family how ready they are, on a scale from 1-10, to try making the change to their behaviour.



Here are some questions you could ask at each stage:

NOT READY (0-3) PRECONTEMPLATION	UNSURE (4-6) CONTEMPLATION	READY (7-10) PREPARATION/ACTION	LIVING IT MAINTENANCE	RELAPSE
Advise and Encourage	Explore Ambivalence and Build Readiness	Strengthen Commitment and Facilitate Action	Encourage	Encourage
 Would you like more information on? How can I help? Is there something else that you would rather discuss? 	 How will you know when it's time to start thinking about [healthy living topic]? Where does that leave you now? What do you see as your next step? 	 What are your ideas for making this work? What is one barrier that might get in the way? How will you deal with this? Use the Healthy Living Pinwheel Tool (described below) to develop SMART goals 	Congratulate them! Ask them what is helping them, and what else would help them	 Encourage them to not be hard on themselves change takes time What worked for a while?

Adapted from California Medical Association Foundation (2008), Simmons et al. (2003), and Zimmerman et al. (2000)

A Suggested Approach to Using this Toolkit

The following approach is one way that you can have a conversation about healthy living with children and youth with mental health challenges and their families. The approach takes into account the child's or family's 'readiness for change' – discussing changes when a child or family is not ready can lead to resistance, denial or frustration.⁶ For instance, if a child or youth is experiencing acute symptoms, or is faced with more immediate concerns (e.g. a youth experiencing familial difficulties), having a discussion about healthy living may be difficult or inappropriate. The steps below assume the child or family is at a 'preparation' or 'action' stage. It is also important to be aware of and respect cultural differences to healthy living when setting goals or discussing any of the topics in this toolkit.

1. BROACHING THE SUBJECT

The way healthy living is brought up depends on many things, such as whether the family already has a healthy living topic in mind that they would like to talk about, if you feel that a specific healthy living topic should be addressed, and how ready the family is to consider making changes. The subject of healthy living should, whenever possible, be brought up as a result of the family mentioning a healthy living concern or touching on a related issue.

If healthy living is not brought up by the family, you could bring up a specific aspect of healthy living by tying it in to the reason for the visit, and explaining how it will help with the child or youth's specific condition or situation. If a healthy living topic is not noticeably related to the reason for the visit, or the child or youth is not interested in talking about the topic you have brought up, you could try asking if there are any healthy living topics they would like to talk about. It may be helpful to have the child or youth look at and choose one of the topics on the *Healthy Living Pinwheel Goal Setting Tool* (found at the back of this module).

Here are some examples of how healthy living could be brought up:

EXAMPLE 1

"We've talked today about how your child is adjusting to Risperidone [an antipsychotic medication]. Sometimes, Risperidone can cause kids to become very hungry. Have you noticed a change in your child's diet since starting the medication?"

EXAMPLE 2

For a teenager who has talked about their numerous commitments: "It seems you have quite a lot going on in your life right now. Sometimes, having a lot 'on the go' can make people feel really stressed. Would you like to spend a few minutes brainstorming a few ways to manage stress?"

EXAMPLE 3

For a youth with depression: "Many people with depression tend to feel tired or have trouble getting outside. Have you noticed a change in how much physical activity you're able to do?"

EXAMPLE 4

Looking at the *Healthy Living Pinwheel Goal Setting Tool:* "All of these topics on the pinwheel can help you feel better, both physically and mentally. For instance, sleep can help you concentrate better and give you energy during the day. We don't have time to talk about all of these, but we do have a few minutes to talk about one of these. Would you like to choose one?"





The Healthy Living Pinwheel Goal Setting Tool, found at the back of this module, can be used to identify SMART goals



Healthy Living Pinwheel Goal Setting Tool

2. ACKNOWLEDGING EFFORTS

Acknowledging the efforts and feelings of children and youth, as well as their parents/caregivers can go a long way in building trust and rapport. This could include acknowledging their feelings (e.g. I understand you're stressed/frustrated/concerned), the efforts they've made towards a healthy living goal, or the strengths the family already possesses that can help them reach their goal.

3. DEVELOPING AN ACTION PLAN

If the child or youth is ready to make a change, you can brainstorm with the child/family 1-2 small, short-term goals. The *Healthy Living Pinwheel Goal Setting Tool*, found at the back of this module, can be used to identify SMART goals. SMART goal setting has been found to help children maintain focus and provides structure in changing behaviour.² The SMART acronym refers to Specific, Measurable, Attainable/Action Plan, Realistic, and Timely. You will also find a *Healthy Living Daily Tracker* at the back of this module, which can be used to track daily progress towards the identified SMART Goal. A regular calendar can also be used to track progress, depending on the preference of the child or youth. Editable PDF versions of the *Healthy Living Pinwheel Goal Setting Tool* and the *Daily Tracker* can be found online at: keltymentalhealth.ca/toolkits

This is also a good time to discuss any barriers the family identifies to reaching their goal, and what can help them to overcome these barriers (for example, where to find affordable healthy food in their neighbourhood, or how to fit physical activity into a busy day). Along with barriers, you can help the family identify what they see as their strengths in reaching their goal, and what can facilitate them reaching their goals (for example, having a friend to walk to school with as a way to fit in physical activity).

Here are some questions you could ask as you work through the *Pinwheel Goal Setting Tool* with the child or youth:

General Goal:	What area of healthy living does your goal fall into?
	(e.g. Getting a better night's sleep)
Specific:	What do you want to do?
	Describe exactly what you would like to achieve. Being precise in your goal will allow you to focus on it and will bring you closer to achieving it.
	(e.g. Start having 'wind down' time before bed)
Measurable:	How much and how often will you do it?
	Indicate a quantity, like number of times, duration and frequency, for the goal. This way you can mark down on your daily tracker or calendar when you've worked on your goal – this gives you proof of your progress and helps motivate you to continue!
	(e.g. 30 minutes before bedtime each night)
Attainable/Action Plan:	How will you do it?
	Figure out ways in which your goal can be reached. Your attitudes, abilities, skills and supports should be well-matched to the goal you are trying to achieve.
	(e.g. Do something relaxing that I enjoy, like reading a book or taking a bath)
Realistic:	Can you do it?
	Your goal should be challenging, but not so much so that you will not be able to achieve it. On a scale of 1-10, how confident are you that you can reach your goal?
	(e.g. 7/10)
Timely (Time to review goal):	When will you do it?
	Specify a time period (or time frame) during which you will work towards this goal, and when you will review your progress.
	(e.g. I'll start now and review in 2 weeks)

 $Source: Eat \ Well \ and \ Be \ Active \ Educational \ Toolkit. \ Health \ Canada, 2011 \ Reproduced \ with \ the \ permission \ of \ the \ Minister \ of \ Health, 2011.$

4. WRAPPING IT UP: PROVIDING RESOURCES & SUMMARIZING THE PLAN

Once a SMART goal has been created, you can provide additional resources (handouts can be found at the back of each module) that the family can refer to after they leave.

Summarizing the plan can ensure that the family understands what their action plan is. An effective summarizing technique is the 'teach back' method. Research indicates that this method helps to facilitate understanding.⁸ In the teach back method, instead of asking, "Do you understand?" ask the family (child/youth and/or parent) to explain or demonstrate what their SMART goal is. If necessary, have further discussion about the SMART goal to ensure it is well understood and the family is on board with this goal.

Parents' and Caregivers' Role in Supporting Children and Youth

Parents and caregivers play a very important role in helping their children develop healthy living habits. Family involvement increases children's knowledge and positively influences attitudes toward healthy lifestyle behaviours. Cultural, environmental and personal differences in each family contribute to different parenting styles – when it comes to parenting, there is no one-size-fits-all approach. It can be challenging to offer parenting advice while remaining respectful of these differences and the unique challenges each family faces. Despite the many different ways of parenting, there are some key tips that are universal, and very applicable to developing healthy living habits:

ACKNOWLEDGEMENT

Just as parents and caregivers need to be acknowledged for their efforts, children and youth do as well. Encourage parents to acknowledge their children for their healthy living efforts, as this can help to motivate them to continue these behaviours.

ROLE MODELLING

Children and youth watch and learn from their parents/caregivers. Encourage parents to make changes with their children to integrate healthy living practices into their lives. This could include doing something active together as a family on the weekend, developing a morning routine where everyone eats breakfast, or role modeling deep breathing when stressed.

CONSISTENCY

Whether it's sticking to a bedtime routine or setting limits on screen time, being consistent is very important. Encourage parents to be consistent with rules, routines, and promises. Consistency helps a child develop a sense of responsibility and understand expectations, and being consistent means that children and teens will be less likely to test boundaries or push limits.



Resources and Handouts



In this section, you will find resources that may be helpful to both yourself as well as to the families you see in your daily practice. At the end of this section, you will find some tools and handouts. Some of these tools will be useful for you to use with the children and youth you see (e.g. assessment tools), while others can be given to children, youth or parents/caregivers as a handout.

Online Resources

FOR PROFESSIONALS

COMMUNICATION/HEALTH LITERACY					
Organization	Details	Web Address			
Canadian Public Health Association	 Provides easy access to key information about health literacy for health professionals 	www.cpha.ca/en/portals/h-l.aspx			
KidsHealth	Child-Friendly Medical Dictionary	www.kidshealth.org/kid/word			
Adolescent Health Working Group	• Information on readiness for change specific to adolescents (look in the <i>Adolescent Health Care 101</i> Toolkit, p. 12)	www.ahwg.net/knowledgebase/ nodates.php?pid=79&tpid=2			
MENTAL HEALTH & SUBSTAN	CE USE				
Organization	Details	Web Address			
Canadian ADHD Resource Alliance	 Information on ADHD for clinicians and parents, and practice guidelines for physicians 	www.caddra.ca			
Collaborative Mental Health Care	 Toolkits with resources for screening, assessment and treatment of children and youth with mental health problems 	www.shared-care.ca/toolkits-intro			

FOR PROFESSIONALS (CONTINUED)

MENTAL HEALTH & SUBSTANCE USE (CONTINUED)				
Organization	Details	Web Address		
Kelty Mental Health Resource Centre	 Provincial resource centre that can help professionals link children, youth and families with appropriate resources in all areas of mental health and addictions 	keltymentalhealth.ca		
	 The editable PDF Pinwheel Goal Setting Tool and Daily Tracker can be found on this site 			
Southern Alberta Child and Youth Health Network	 Quick reference tool containing interview and screening guides for primary care practitioners on mental health issues in children and youth 	www.albertahealthservices. ca/4718.asp		
CARBC: Risky Drinking Screening Tools (youth)	 A resource (Alcohol Reality Check) to assist professionals who work with young people to facilitate effective screening and brief interventions related to risky drinking 	www.carbc.ca/HelpingCommunities/ ToolsResources/AlcoholRealityCheck. aspx		

FOR FAMILIES

PARENTING				
Organization	Details	Web Address		
IWK Health Centre	 A video-taped education series provided by psychologists on different parenting topics related to kids' mental health 	www.iwk.nshealth.ca/index. cfm?objectid=2BACB066-F338- BC9D-1C0A2A7B3E6531D4		
MENTAL HEALTH & SUE	STANCE USE			
Organization	Details	Web Address		
Kelty Mental Health Resource Centre	 Provincial resource centre linking children, youth and families with resources in all areas of mental health and substance use 	keltymentalhealth.ca		

FOR FAMILIES (CONTINUED)

MENTAL HEALTH & SUBSTANCE USE (CONTINUED)				
Organization	Details	Web Address		
The F.O.R.C.E. Society for Kids' Mental Health • A family organization dedicated to helpi parents navigate and understand the me health system and connect to other family		www.forcesociety.com		
mindcheck.ca	 A BC-based youth and young adult website where visitors can connect on how they're feeling and get connected to support early and quickly 	http://mindcheck.ca		
Here To Help	 Provides information and tools for people in B.C. to prevent and manage mental health and substance use issues 	www.heretohelp.bc.ca		
	 Includes a resource for parents of young teens about alcohol and other drugs (The Road Ahead: A Guidebook for Parents of Young Teens) 	www.heretohelp.bc.ca/understand/ alcohol-drugs#road		
Youth in BC	 A web-based hotline providing youth in distress an opportunity to receive one-on-one online support from trained youth volunteers 	www.youthinbc.com		
Distress Line	 Provides support, information and referrals 24/7, without a wait or busy signal 	310-6789 (no area code needed)		
Centre for Addiction and Mental Health	 Offers materials to learn more about addiction and mental health issues. Includes helpful tips, FAQs, best practices and emerging knowledge 	http://www.camh.ca/		
CADDAC	 Provides education and advocacy for individuals with ADD and ADHD across Canada 	www.caddac.ca		
Teen Mental Health	Information for teens, families and health professionals on mental health topics	www.teenmentalhealth.org		

This module has been developed in collaboration with The F.O.R.C.E. Society for Kids' Mental Health, and families of children with mental health conditions across B.C.

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My Healthy Living Pinwheel Goal Setting Tool



Choose a long-term goal that you would like to achieve, and then decide on a short-term SMART goal that will help you to reach your ultimate goal. Your goal can be anything that you feel is important to your health and wellness. Remember to reward yourself when you reach your goals!

to remain yourself when you reach your goals.		
Goal: S:	S: M: A:	Goal:
M:		Remember, setting short-term goals can help you reach your
A:		long-term goal!
R:	Carl	
	Goal:	
	S:	
	A:	
	R:	
My Signature:		

My Healthy Living Pinwheel (Example)



Here are some examples of SMART goals. You can choose one of these goals for yourself, or choose anything that you think would make a difference to your health and wellness!

Goal: Managing stress/worries

S: Deep breathing

SMART GOALS ARE: M: 5 'belly breaths'

A: When I feel stressed/worried

T. Next week (date)

Specific

Measurable

Action Plan

Realistic

(On a scale of 1-10, how confident are you that you can reach your goal?)

Time (to review goals)

Pat Smith

NAME:

Goal: _Eat healthier

s: Eat more fruit

M: 1 piece/day

A: Buy 7 pieces of fruit/week

R: 7/10

T: Next week (date)

Goal: Be more active

S: Walking

M: 45 minutes on Mon, Wed & Fri

=SiM

A: At the park, with my mom

R: 8/10

T: By the end of 2 weeks (date)

Remember, setting short-term goals can help you reach your long-term goal!

Goal: sleeping well

S: 'Wind down' time before bed

M: 30 min before bedtime

A: Do something relaxing (book, music, bath)

R: 7/10

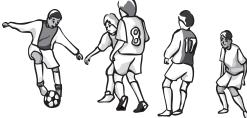
T: By the end of 2 weeks (date)

My Signature:

My Healthy Living Daily Tracker



My SMART Goal:		My SMART Goal:			
	Did I reach my goal? (Put a ✔)	My notes - What did I do? - What do I plan on doing?		Did I reach my goal? (Put a ✔)	My notes - What did I do? - What do I plan on doing?
DATE:	M T W T F S S		DATE:	M T W T F S S	
DATE:	M T W T F S S		DATE:	M T W T F S S	
DATE:	M T W T F S S		DATE:	M T W T F S S	



My Healthy Living Daily Tracker

Examples



My **SMART** Goal: Eat Healthier (eat more fruit)

Did I reach my goal? (Put a ✓)

My notes - What did I do?

- What do I plan on doing?

DATE:

Feb. 1 -Feb. 7 Fruit Shake (mom made for me)

Cantaloupe (half cup)

Forgot

Had fruit leather

Forgot

Forgot

Apple

DATE:

Feb. 14

It's Monday
Blueberries (1 cup: 2 servings)
Banana
Apple
Forgot
Orange
Sick to my Stomach

DATE:

M T W T F S

SMART GOAL BREAKDOWN:

S: Eat more fruit

M: 1 piece/day

A: Get mom to buy 7 pieces/week

R: 7/10

T: Review on Feb. 14 (2 wks)



My **SMART** Goal: Be more active (walking)

Did I reach my goal? (Put a ✓)

My notes - What did I do?

- What do I plan on doing?

DATE:

Feb. 8 -Feb. 14

Walked 30 min at park with mom

Walked 30 min to school

Didn't walk – too tired

DATE:

Feb. 15 -Feb. 21 $\begin{pmatrix}
M & \checkmark \\
T & \\
W & \checkmark \\
T & \\
F & \\
S & S
\end{pmatrix}$

Walked 35 min with friends

Walked 30 min to school

Raining – forgot umbrella

DATE:

Feb. 22 -Feb. 28 $\begin{pmatrix}
M & \checkmark \\
T & \\
W & \checkmark \\
T & \\
F & \checkmark \\
S & S
\end{pmatrix}$

Walked 30 min at park with mom

Walked 30 min to school

Walked 30 min home from school

SMART GOAL BREAKDOWN:

S: Walking

M: 35 min. on Mon. Wed and Fri

A: At the park or to/from school

R: 8/10

T: Review on Feb. 28 (3 weeks)



MODULE **02**Healthy Eating

MODULE 02 Healthy Eating

This module is comprised of the following sections:

SECTION 1: Key Messages

SECTION 2: Discussing Healthy Eating with Children and Youth

SECTION 3: Addressing Challenges to Healthy Eating

SECTION 4: Medications and their Effects on Nutrition

SECTION 5: Resources and Handouts

Good nutrition is important for growth and development. Research demonstrates the importance of nutrition in learning, activity, sleep, mood and energy level. Ensuring children develop a healthy relationship with food can lead to long term healthy lifestyles and weights. For children with mental health challenges, it is very important to create a healthy relationship with food to decrease the stress and anxiety that food issues often produce.

Many children and youth with mental health concerns are at heightened nutrition risk.¹ For example, alternative nutrition therapies, such as gluten free diets or vitamin supplementation, can put children at risk for nutrient deficiencies or excesses. Also, certain medications can cause significant weight gain or loss. Helping children attain optimal nutritional status can improve both their physical and mental health, and their overall well being.

It can be difficult for families to know where to go for appropriate nutrition advice. The media are consumers' leading source of nutrition information and often provide misleading or incorrect information.² Research has shown that parents often look to their health care practitioners for nutrition advice³, showing a need for primary health care professionals to enquire and feel comfortable providing nutrition recommendations to families. This module will provide you with helpful information to offer nutrition advice to children and youth with mental health challenges, and their families.

SECTION 01

Key Messages





Skipping breakfast causes metabolism to slow down, often resulting in weight gain Here are some key messages to keep in mind when discussing healthy eating with children, youth and their families:

1. FAMILIES THAT EAT TOGETHER, EAT BETTER

Eating meals together as a family has been shown to benefit dietary intake and psychosocial health, as well as reduce disordered eating behaviours, substance use, and depression.^{4,5,6}

2. ARE YOU A SUMO WRESTLER? IF NOT, EAT BREAKFAST

Sumo wrestlers only eat 2 meals a day. They will skip breakfast to slow down their metabolism and gain weight.^{7,8} There are many benefits of breakfast for everyone, especially children and adolescents, including:

- Decreased incidence of obesity, lower BMI, and lower waist circumference⁹
- Increased cognitive function (memory, test grades & school attendance)¹⁰
- Higher intake of many nutrients including vitamins A, E, C, B6, B12, folate, iron, calcium, phosphorus, magnesium, potassium and dietary fibre⁹

A Great Breakfast Ideas handout can be found at the back of this module.

3. DIETING DOESN'T WORK - MAKE SMALL, ACHIEVABLE CHANGES

A significant number of adolescents and children are engaging in dieting behaviour, and many of these children are within a healthy weight range. ^{11,12} A study tracking preadolescents and adolescents and their dieting behaviour showed adolescents that engaged in dieting behaviour gained more weight than non-dieters. ¹³ Dieting has also been shown to increase the likelihood of developing an eating disorder. ¹⁴

4. DRINK WATER, MILK, AND ONLY A SMALL AMOUNT OF 100% FRUIT JUICE AND STAY AWAY FROM SUGAR-SWEETENED BEVERAGES

Sugar-sweetened beverages contribute to obesity¹⁵ and the development of metabolic syndrome and type 2 diabetes.¹⁶ 100% fruit juice is not considered a sugar-sweetened beverage, but has been associated with increased energy intake and weight status in some studies, but not others.¹⁷ However, milk consumption (plain or flavoured) is not associated with weight gain over non-milk drinkers.





TIPS FROM FAMILIES:

"Always have healthy snacks readily available—try having vegetables and fruit pre-cut and ready in the fridge"

The Guide to Healthy Living for Families, developed by The F.O.R.C.E. Society for Kids' Mental Health

5. DIVISION OF RESPONSIBILITY: SHOULD DESSERT BE WITHHELD UNTIL A CHILD EATS THEIR VEGETABLES?

Parents who try to control children's intake by making them finish their plate, or restricting palatable foods (e.g. cookies) unless they finish their vegetables are teaching children to ignore their internal cues for hunger and fullness. Children know how much they need to eat.¹⁸

- Parents are responsible for what, when and where; children are responsible for how much and whether
- Parents' Feeding Jobs:
 - Choose and prepare the food
 - Provide regular meals and snacks
 - Make eating times pleasant
 - Show children what they have to learn about food and mealtime behaviour
 - Not let children graze for food or beverages between meal and snack times
 - Let children grow up to get bodies that are right for them
- Fundamental to parents' jobs is trusting children to decide how much and whether to eat. If parents do their jobs with feeding, children will do their jobs with eating:
 - Children will eat
 - They will eat the amount they need
 - They will learn to eat the food their parents eat
 - They will grow predictably
 - They will learn to behave well at the table

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Note: Some children do not respond to hunger and fullness cues (for example, those on specific medications or those who have chronically ignored these cues). For these children, more parameters may need to be in place regarding quantity of food, timing, etc. Individual nutrition counselling by a dietitian may be required.



6. TREAT WITH LOVE, NOT SWEETS

When children do something well and are rewarded with food, or hurt themselves and get a cookie to make them feel better, they associate these occurrences with food, and this association can continue with them through life. So later, when they are sad or anxious or even happy, they'll want to eat.¹⁹ Try to encourage parents to find other ways to reward their children. A link to a handout with ideas can be found in the resource section at the back of this module (look under 'National Heart Foundation of Australia').

SECTION 02

Discussing Healthy Eating with Children and Youth

Nutrition problems are pervasive in our society and as such are common in children and youth with mental health challenges. Parents often look to their health care practitioners for advice.³ It's important to assess whether nutritional concerns are actually present, and to determine whether the family is ready or has space in their lives to deal with these concerns now. Some families may be overburdened with so many issues that they do not have the capacity to address the concerns that you feel are important. See Module 1 (Getting Started) to determine what stage of change the family is at, and take this into consideration when delivering basic nutrition information. Also, if the problems are beyond your scope of knowledge or cannot be adequately addressed in the time available, find dietetic resources in your community. Many hospitals have general outpatient nutrition counselling that is free when referred by a physician. There are also many private dietitians across the province (see the resource section at the back of this module for a link to a list of dietitians, under 'Dietitians of Canada').

Assessing Nutrition Problems in Children/Youth

time is limited. If a brief nutrition assessment is done, assess for major nutrient deficiencies or excesses, or major disruptions in the child or youth's eating such as skipping breakfast. Different ways to assess nutrition are described below.

For health professionals, doing a brief nutrition assessment can be hard when

BMI Calculation

Body Mass Index (BMI) = weight (kg) \div height (m)²

GROWTH CHARTS

General health care practitioners play an important role in well visits. At these visits it's important to check a patient's weight and height, calculate BMI, and track these on growth charts (see the link to WHO growth charts in the resource section, under 'Dietitians of Canada'). It is also important to monitor that children and youth do not cross percentiles rapidly, especially in the area of mental health where medications can cause weight loss or rapid weight gain. Their BMI growth curve would indicate whether this is important to address.

TAKING A NUTRITION HISTORY

A quick 24-hour diet history (asking the child and/or their parent to recall what they ate for the entire previous day) can be taken and compared to *Canada's Food Guide* to assess for major nutrient or vitamin/mineral deficiencies.



Incorporate one or two nutrition history questions at each visit

For example, in a diet history you may notice little or no milk, yogurt or cheese consumption and can counsel on the lack of calcium and vitamin D in the diet. (*Canada's Food Guide* is provided as a handout at the back of this module, and a link can be found in the resource section).

Alternatively, taking a nutrition history can be incorporated quickly by asking a series of pointed questions. A list of useful questions can be seen below. Given that there often is not enough time to ask all questions, ask and address one or two questions at each visit.

SAMPLE NUTRITION HISTORY QUESTIONS



- 1. How many days a week do you eat breakfast?
- 2. Do you eat whole grain products or high fibre grains? (Serving: 1 slice 100% whole grain bread; ½ cup [125 mL] brown rice; 1 cup [250 mL] whole grain cereal; ½ whole grain bagel; ½ cup [125 mL] whole wheat pasta; ½ cup [125 mL] baked or boiled potatoes or yams)
- 3. How many servings of fruit do you eat a day? (Serving: ½ cup [125 mL] fruit or 1 medium fruit)
- 4. How many servings of vegetables do you eat a day? (Serving: ½ cup [125 mL] vegetables or 1 cup [250 mL] leafy raw vegetables)
- 5. How many servings of milk or milk alternatives do you eat in a day? (*Serving:* 1 cup [250 mL] milk or fortified soy milk; ¾ cup [175 g] yogurt; 1 ½ ounces [50 g] cheese)
- 6. How many cups of sugar sweetened beverages like soda (not diet soda), juice, lemonade, ice tea, energy drinks or sport drinks (e.g. Gatorade) do you drink in a day?
- 7. How many times a week do you eat out in a sit down or fast food restaurant, or cafeteria?
- 8. Do you stop eating when you are full?
- 9. Do you eat slowly?

Suggestions for Discussing Healthy Eating with Children and Youth

Talking about what a person eats can be a very sensitive topic. It can often be embarrassing for a child, youth or parent to divulge the extent of their diet. Try to reserve judgment and express gratitude if people are open and honest about their diets. Also keep in mind that beliefs and attitudes about nutrition and a healthy body size can vary across cultures. Be sensitive to people's cultural beliefs.

To ensure follow-through with dietary advice, children, youth and/or their families must 'buy in' to what you are recommending. If you feel that a child or youth has a diet that is low in calcium, try to explain the potential consequences of the deficiency and ask if altering these consequences is important to the child or youth. If this isn't a priority, the chances of a change occurring are small. Also, broad statements regarding a change in diet are often not helpful, such as "ensure you eat 5-10 servings of fruits and vegetables a day." This doesn't explain 'why' and can be difficult to achieve as it may be too far off from where the child or youth is starting from (e.g. 1 serving fruit/day and no vegetables).

After conducting a brief nutrition history, you can ask the child/youth or their family what they think they should work on. They may realize the child/youth doesn't eat enough fruit, or drinks too many sugar-sweetened beverages. You can then create a small, achievable goal (SMART goal) with the child or youth (see the *Pinwheel Goal Setting Tool* in Module 1). For example, if a young person normally drinks 3 sugar-sweetened beverages per day, and he/she is willing to work on decreasing this amount, an achievable goal for this youth may be decreasing to 1 or 2 sugar sweetened beverages a day. Stick to one or two small goals like this to ensure they are achievable, and you will help the child/youth and their family get on their way to making permanent healthy lifestyle changes.



Ask the child/youth what they think they should work on. Then create a SMART goal with them

SECTION 03

Addressing Challenges to Healthy Eating

There are many factors that can impact nutritional health. Most people have great intentions to follow healthy diets, but many things can come in the way. Families of children and youth with mental health concerns can be impacted by reduced income due to a parent not being able to work, children with picky eating, children with sensory issues, medications that impact nutrition, etc.

Common Challenges to Healthy Eating

The following chart lists common challenges that families encounter and tips on how to discuss overcoming these challenges. Additional tips suggested by families in B.C. who have children with mental health challenges can also be found in the *Guide to Healthy Living for Families*, available from: keltymentalhealth.ca/toolkits

SHOPPING AND MEAL PLANNING

Challenge

Tips on how to discuss challenges

Grocery shopping



- Don't go to the grocery store hungry; you'll be less likely to make impulse buys
- Plan your meals for the week and make a grocery list; this will help to ensure you buy only what you need
- Encourage families to take a grocery store tour; two BC supermarkets (Save-On-Foods and Choices) provide tours (Choices is free)
- A meal planning handout, as well as links to websites with tips for healthy meal planning, can be found in the 'Resources and Handouts' section of this module

Lack of time



- Cooking healthy meals doesn't have to take much time if you've planned ahead and done your grocery shopping (see above). Use frozen veggies, grill a frozen veggie burger, dress a bun, add a glass of milk and canned peaches for dessert
- Great meal ideas can be found here: www.dietitians.ca/Your-Health/Plan-Shop-Cook/Cook-Healthy.aspx

Family meals

- Encourage families to find a few nights a week, at a minimum, to sit down and eat together. See Section 1 for reasons why this is beneficial
- For the nights when dinner is late in the evening, make sure children and youth have healthy snacks (see the *Great Snacks* handout at the back of this module) to bring with them to their activities
- Alternatively, families can have a light dinner in the late afternoon (e.g. 4 pm) and a heavier snack in the evening. Sometimes all it takes is a readjustment of the meaning "family dinner"

SHOPPING AND MEAL PLANNING (continued)

Challenge

Tips on how to discuss challenges

Family meals (continued)

- Many communities have community kitchens that can help families learn how to cook meals, do meal planning, etc. A database of community kitchens in BC can be found here: www.communitykitchens.ca/main/?CSBDatabase
- See Ellyn Satter's website for Mastering Family Meals: www.ellynsatter.com/mastering-family-meals-step-by-step-i-72.html

Eating out



- Occasionally eating out (e.g. one time per week) is normal and healthy. If you eat out occasionally, enjoy the experience
- If you are frequently eating out, it is advised to try to cut back
- Families can also try to choose healthier items when they are eating out. Most fast food restaurants allow substitutes such as milk for a drink, and a baked potato or salad for fries. Try to encourage families to make changes if eating out is regular
- See more tips on dietitians.ca: Having a Healthy Meal When Eating Out www.dietitians.ca/Nutrition-Resources-A-Z/Fact-Sheet-Pages(HTML)/Lunches/ Healthy-Meal-when-Eating-Out.aspx

Skipping meals (teenagers)

- New studies show that teenagers who snack more throughout the day actually achieve a healthier body weight. This is likely due to their bodies getting regular nutrition throughout the day, so they aren't overly hungry at mealtimes. People who sit down for a meal when they are 'starving' tend to over eat
- It's best to recommend three meals and 1-3 snacks per day to promote a healthy metabolism and to prevent over-hunger, which can lead to over-eating

PICKY EATING AND SENSORY ISSUES

Challenge

Tips on how to discuss challenges

Picky eating



- Encourage parents to follow the Division of Responsibility (see Section 1); power struggles with food lead to no one being the winner
- Get children and youth involved in the cooking process; they are more likely to eat something they've made (an activity for making a recipe together can be found in the *Guide to Healthy Living for Families*, available from keltymentalhealth.ca/toolkits)
- Avoid grazing all day; a child won't eat at meal times if they aren't hungry
- Drinking juice throughout the day may fill a child up so they won't be hungry for meals
- See hints from Ellyn Satter: www.ellynsatter.com/the-picky-eater-i-43.html

PICKY EATING AND SENSO	RY ISSUES (continued)		
Challenge	Tips on how to discuss challenges		
Sensory issues	 Some children with mental health concerns can have a difficult time with the texture or consistency of foods. Children with concerns like these should be referred to occupational therapy or speech language pathology if it's impacting their ability to follow a healthy die 		
	NOTE: There is a big difference between a child or youth being a picky eater, and a child or youth with severe food aversions. There are many children with sensory-based eating challenges and/or Autism Spectrum Disorder who have very severe food limitations. These children require referrals to appropriate help such as occupational therapy, speech language pathology, or behavioural therapy that specialize in addressing sensory-based eating challenges		
SOCIAL FACTORS			
Challenge	Tips on how to discuss challenges		
Low income	• It is very important to be empathetic to families with low socioeconomic status, as they may be unable to meet the nutritional recommendations you make		
	 Recommendations can include trying to make homemade meals more often instead of buying pre-prepared meals, pre-grated cheese, etc. Also, having vegetarian menus made with lentils or tofu, for example, is much cheaper than using meat. Many families may need to use food banks. To help a family find a food bank, see: www.foodbanksbc.ca 		
	 Handouts: Eating Well on a Limited Income (www.healthlinkbc.ca/healthyeating/ limited-income.html) and Healthy Eating Cheap and Easy (www.health.gov.bc.ca/library/ publications/year/2002/HealthyEatingdoc.pdf) 		
Role modeling	 Children are looking to their parents for good information on healthy eating. It is essentia that information provided to a child regarding their diet applies to everyone in the family. For example, when a child has to stop drinking pop because of insulin resistance, this should be a positive and healthy experience for the whole family 		
Peer pressure	 Arm children and youth with information about healthy eating, such as why eating lunch is healthy. Teenage girls will often stop eating some meals in an attempt to lose weight. They may not know that missing meals will slow down their metabolism and increase the chances of overeating later in the day, causing inadvertent weight gain 		
Fad diets	 Fad Diets don't work (see Section 1) There is convincing research showing that when a person drops weight quickly, he or she will have a rapid drop in metabolism that does not return to its original level. This makes it harder each successive time a person tries to lose weight. Slow, sustainable weight loss 		

 $\hbox{\color{red} \bullet A handout on fad dieting is available from: http://vch.eduhealth.ca/PDFs/BB/BB.200.W54.pdf}$

is key to ensuring this drop in metabolism doesn't happen

GENERAL NUTRITION	
Challenge	Tips on how to discuss challenges
Nutrition label reading	 Encourage families to spend time reading labels. It can be helpful in guiding them to make healthier food choices
	• For handouts and more information on label reading: http://www.dietitians.ca/Your-Health/Nutrition-A-Z/Food-Labels
Energy drinks	 Energy drinks are not for children and this is specified on energy drink labels. The amount of caffeine in energy drinks is too high for children under 12 years of age
	 Too much caffeine can cause irritability, nervousness and sleeping problems. It is not recommended that children and young teenagers use energy drinks. See the link under 'Dietitian Services at HealthLinkBC' in the resource section for more information on energy drinks
MEDICATION	
Challenge	Tips on how to discuss challenges
Medications increasing hunger	Some medications, like second generation antipsychotics, can dramatically increase hunger in children and youth. See the medication section for more information and tips
Medications decreasing hunger	Some medications, like stimulants, act like appetite suppressants. See the medication section for more information and tips

Mental Health Challenges and Healthy Eating

Common Findings

AUTISM SPECTRUM DISORDERS (ASD)

When there are mental health concerns, there are a number of factors that can impact the nutritional status of the child or youth. See below a table that outlines common nutrition findings in children and youth with their specific mental health concern.

Common Findings Summary of evidence and recommendations	
Sometimes on gluten-free/	• Current evidence for the efficacy of this diet is poor ²¹
casein free diets ²⁰	 Assess for major food deficiencies (commonly Ca/Vit D) (see the resource section for a link to an online calcium calculator)
	• A recent double-blind, placebo controlled trial showed no positive results of the diet ²²
	 A randomized, single-blind study showed potentially positive results.²³ However, without a placebo, these results are questionable
	 A clinical study is underway to assess the role of a GFCF diet to manage autism- associated gastrointestinal disorders (see increased GI problems below)²⁴
Potential increased gastrointestinal (GI) problems ^{25,26}	• If impairing intake, refer to RD for specific diet assessment and recommendations
	\bullet There is also a question of whether there are actually increased GI problems compared to children without ASD^{27}
Poor food selectivity,	Division of responsibility (see Section 1: Key Messages) may help in less severe cases
dysfunctional feeding behaviour ²⁸ and sensory sensitivity affecting food intake ²⁹	 Refer to a feeding expert: Occupational Therapist (OT) or Speech Language Pathologist (SLP) for swallowing issues, oral motor development and desensitization; Psychologist or Behavioural Consultant for phobias or entrenched behaviours (see the resource section for a link to OT/SLP services)
30-50% of children with ASD	Check supplements and potential interactions with medications
receive some form of dietary or dietary supplement therapy	• Check for major dietary deficiencies. In general, children with ASD have significantly lower dairy consumption, and often do not meet recommendations for daily intake of

fibre, calcium, iron, vitamin D and vitamin E³⁰

• Monitor iron status. Supplement when low serum ferritin

Summary of evidence and recommendations

Iron deficiency with low serum

ferritin related to restricted

Omega-3 supplementation*

food intake31,32,33

• Currently insufficient evidence to recommend supplementation³⁴

ATTENTION DEFICIT HYPERA	ATTENTION DEFICIT HYPERACTIVITY DISORDERS (ADHD)			
Common Findings	Summary of evidence and recommendations			
Impaired growth related	Monitor weight and height regularly (biannually)			
to medication	 Adjust timing, dose or formulation of medication to allow for hunger at more meals (e.g. give medication after breakfast, use lowest effective dose, evaluate impact of long-acting medication formulations on appetite). 			
	Refer to dietitian for high energy food recommendations			
	• Impaired growth appears to be dose-dependent ^{35,36}			
	• Children who take medication intermittently do not show the same growth loss; a summer drug holiday may be helpful ^{35,37}			
Changes in appetite due to medication	• Children with ADHD who are treated with stimulant medication will tend to eat most late at night when medication has worn off. They should be encouraged to either eat something or have a meal replacement such as Boost or Ensure at breakfast or lunch to minimize side effects later caused by hunger (see Section 4 - 'Stimulants' for age and weight ranges for meal replacements)			
Omega-3/Omega-6 supplementation*	• Trials of omega-3 supplements on ADHD have often shown no effect possibly because of small participant numbers. However, a meta-analysis including some of these studies found a very small positive effect of omega-3 supplementation in comparison to that of psychostimulants. ⁷¹ This was likely due to great statistical power in this large pooled sample.			
	 Omega-6 does not appear to show effects on ADHD symptoms in comparison to placebo.³⁸ 			
Iron deficiency and low	Check serum ferritin			
serum ferritin ⁴⁰	• Supplementation with iron may improve ADHD symptoms when serum ferritin is low ³⁹			
Serum ferritin levels were inversely correlated with severity of ADHD ⁴⁰				
Serum zinc levels lower in children with ADHD ^{41,42} Lower serum zinc levels correlated to inattention ⁴³	 There is no conclusive evidence as yet of the benefit of zinc supplementation. Two studies done to date have been in middle-eastern countries with suspected endemic zinc deficiency⁴³ Check serum Zn levels. It is unclear if zinc supplementation is helpful 			
correlated to matterition	Check Scram Zir ievels. It is unclear if Zine supplementation is neipiar			
Additive-free (food colours and/or preservatives) diet may improve ADHD symptoms ^{44,45,46}	 An additive-free diet may be beneficial in children with a history of food sensitivity but only under the supervision of the primary healthcare provider or dietitian to ensure nutritional balance⁴⁴ 			

ATTENTION DEFICIT HYPERACTIVITY DISORDERS (ADHD) (continued)					
Common Findings	Summary of evidence and recommendations				
There is no link between sugar and hyperactivity ^{47,48}	Removal of sugar from the diet is not recommended and will not benefit ADHD sympton				
Celiac disease has ADHD-like symptomatology ⁴⁹	 Check for celiac disease. Behaviour may improve on a gluten-free diet if a diagnosis of celiac disease is made 				
MOOD DISORDERS					
Common Findings	Summary of evidence and recommendations				
Omega-3 supplementation*	• Evidence does not yet support the use of omega-3 supplementation for anxiety disorders ³⁸				
	• Supplementation with eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) may benefit patients with depression ^{38,50,51} and help patients with the depressive episodes but not manic episodes of bipolar disorder ^{38,52}				
Folate supplementation may	• Folate may have a potential role as a supplement to other treatments for depression ^{53,54}				
help in depression (based on adult studies) ^{53,54}	• If folate supplementation is warranted, it may mask a deficiency of vitamin B12. Therefore, evaluation of vitamin B12 levels and possible supplementation should occur				
Celiac disease is associated with an increased prevalence of depressive and disruptive behaviour disorders ⁵⁵	• Test for celiac disease. A gluten-free diet can improve symptoms if a diagnosis of celiac disease is made ⁵⁵				
SCHIZOPHRENIA SPECTRUM	DISORDERS				
Common Findings	Summary of evidence and recommendations				
Omega-3 supplementation*	$ullet$ Supplementation with omega-3 in treatment for schizophrenia (either EPA or DHA) is unconvincing to date 38,56				
	 Supplementation has been shown to cause a significant increase in BMI and bleeding time compared to placebo in adults with schizophrenia taking first-generation antipsychotics⁵⁷ 				
~2% of patients with	Test for celiac disease. Recommend a gluten-free diet if diagnosed with celiac disease				
schizophrenia have celiac disease which is as much as double the general population ^{58,59}	• There is extremely limited data on gluten-free diets and schizophrenia for patients without celiac disease				

SCHIZOPHRENIA SPECTRUM DISORDERS (continued)

Common Findings

Summary of evidence and recommendations

Significantly higher rates of impaired fasting glucose in drug naïve patients and their first-degree relatives in adult studies^{60,61,62} as well as significantly higher rates of insulin resistance^{60,63}

 Screening tests for Impaired Glucose Tolerance (IGT) and Type 2 Diabetes could be beneficial for both patients and their first-degree relatives for early detection and intervention

EATING DISORDERS

General Recommendations

- Early diagnosis and intervention lead to better prognosis⁶⁴
- It is recommended that ALL eating disorder patients be assessed and treated by a multidisciplinary team⁶⁵, or that treatment is in conjunction with a *minimum* of a physician/paediatrician, dietitian and therapist
- In general, family involvement in treatment is highly recommended
- Eating disorders include: Anorexia Nervosa (AN), Bulimia Nervosa (BN), Eating Disorder Not Otherwise Specified (EDNOS), and Binge Eating Disorder (BED)

Common Findings	Summary of evidence and recommendations
Vegetarianism and eating disorders	 Adolescents who adopt a vegetarian diet may do so because it is a socially acceptable way to avoid eating certain food groups and may be at risk for disordered eating behaviours⁶⁶
Decreased bone density	• Attaining a body weight which normalizes gonadal steroid levels is critical for normal bone accrual to optimize peak bone mass. As with all children and youth, recommended intakes for calcium (1300mg/day) and vitamin D (600 international units/day) should be strived for. An eating disorders treatment team can screen for vitamin D insufficiency and recommend a therapeutic vitamin D intake if indicated.
Refeeding syndrome in AN	 Refeeding of a patient with AN should be undertaken with an eating disorder treatment team. Refeeding requires gradual advancement of nutrient intake and close monitoring to prevent problems such as: hypophosphatemia, edema, cardiac failure, seizures and death⁶⁴
	 Monitor electrolytes, phosphorus, and magnesium regularly (daily for the first 1-2 weeks during early refeeding and supplement with phosphate as required)⁶⁸

EATING DISORDERS (continued)					
Common Findings	Summary of evidence and recommendations				
Omega-3 supplementation*	 No research specifically on omega-3 and eating disorders, however, they may be useful in treating some symptoms (e.g. elevated serum triglyceride levels, insulin sensitivity, mood disorders)⁶⁷ 				
Limited intake in AN leading to micronutrient deficiency	• Evaluation of folic acid, thiamine, vitamin B12, zinc, vitamin D (see above) and calcium may be warranted ⁶⁷				
Iron-deficiency Anemia	• Check plasma ferritin. Supplement as needed ⁶⁸				
Electrolyte disturbances and purging (e.g. forced vomiting	• Electrolyte disturbances should be monitored carefully by a physician in the treatment team as there are increased risks for cardiac arrhythmias				
and abuse of laxatives)	 Monitor for hypokalemia and/or hypochloremic alkalosis with vomiting⁶⁸ 				
	\bullet Monitor for hyponatremia, hypomagnesemia and hypophosphatemia with chronic laxative use 68				
	 Hyponatremia may also be present. Note that serum levels may appear within normal limits in a dehydrated patient, but may be dangerously low when patient is rehydrated⁶⁸ 				

^{*}Omega-3 supplementation may increase risk for bleeding, increase exposure to environmental toxins, or cause hypervitaminosis (Vitamin A and D).

SECTION 04

Medications and their Effects on Nutrition



Many medications used to address mental health concerns have effects on the nutritional status of children and youth. It is important to be aware and advise patients of the major nutritional side effects of these medications. Two classes of medications have more severe nutritional implications and are noted below. For a list of common psychiatric medications and general nutritional side effects, see the *Commonly Used Psychiatric Medications Monitoring Guide for Children and Adolescents*, available as a link from Module 6.

SECOND GENERATION ANTIPSYCHOTICS (e.g. Aripiprazole, clozapine, olanzapine, paliperidone, quetiapine, risperidone, ziprasidone):

Second generation antipsychotics (SGAs) in children and youth may cause a severe increase in their hunger and potential cravings for carbohydrates. Many children and youth can show significant weight gain in a very short period of time. ⁶⁹ Some also develop metabolic side effects, such as impaired fasting glucose. ⁷⁰ The hunger cravings can be so severe that they affect a family's ability to live normally. This may warrant a discussion with the psychiatrist to determine if there is medication with less significant nutrition-related side effects that won't compromise mental health. *NOTE: SGAs may also be known as or referred to as atypical antipsychotics (AAPs) by some health professionals and families*.

When families are informed of the potential side effects to these medications, they can make adjustments such as:

- Removing sugar-sweetened beverages from the home
- Limiting the amount of treats in the house. However, ensure families are still allowing some treats. Deprivation can amplify cravings (for example, 1-2 small cookies/day is normal and healthy)
- Providing regularly scheduled healthy meals and snacks (3 meals and 1-3 snacks/day)
- Outside of meal/snack times, families can redirect a child or youth when they exhibit hunger cravings by engaging them in activities unrelated to food (see the link to the handout on treating without food in the resource section, under 'National Heart Foundation of Australia')



Provide regular meals and snacks: 3 small meals and 3 snacks per day



- Increasing the fibre of grains or choosing lower glycemic index grains can also help a child or youth feel more full and satisfied. For example, a bowl of Mini Wheats® with 5 grams of fibre per serving will help fill a child up more than a bowl of Cheerios® with only 2 grams of fibre per serving. See the resource section for a handout on glycemic index (under 'Canadian Diabetes Association')
- Having a glass of water prior to eating will fill up the stomach and can sometimes reduce intake

STIMULANTS (e.g. Methylphenidate, Dextroamphetamine):

Stimulant medications act as appetite suppressants in many children. If a child has little or no appetite and the medication is affecting their growth, tips for parents include:

- Increasing the caloric content of the foods by boosting fat in the diet by adding butter or margarine, gravies, sauces, or salad dressings to foods. Use higher fat foods such as peanut butter, full fat cheese, and nuts and seeds
- Trying not to drink before or during meals, to ensure the child/youth fills up on food, not liquids
- Having milkshakes made with whole milk, ice cream and fresh fruit, or having meal replacements such as Pediasure (for children 2-9 years old) or Boost/Ensure (for children >9 years of age and >22 kg [48 lbs])
- Ensuring children/youth take snacks with them (see the *Great Snacks* handout at the back of this module for ideas)
- Providing regular small meals and snacks: 3 small meals and 3 snacks in a day
- See Section 3 ADHD for more information and recommendations
- A resource sheet for families (Managing Stimulant Medications in Children and Adolescents) can be found at: http://keltymentalhealth.ca/treatment/ medications (under 'ADHD')

SECTION 05

Resources and Handouts



In this section, you will find resources that may be helpful to both yourself as well as to the families you see in your daily practice. At the end of this section, you will find some tools and handouts. Some of these tools will be useful for you to use with the children and youth you see (e.g. assessment tools), while others can be given to children, youth or parents/caregivers as a handout.

Online Resources

Organization	Details	Web Address	
Dietitians of Canada	 Healthy eating resources, including: EATracker, tip sheets, a virtual grocery store tour, healthy meal planning and shopping 	http://www.dietitians.ca/your- health.aspx	
	Find a Dietitian search page		
	 WHO Growth Charts adapted for Canada and a guide on how to use them 	http://www.dietitians.ca/ secondary-pages/public/who- growth-charts.aspx	
Health Canada	Access to:	www.hc-sc.gc.ca/fn-an/food-guide-	
	 Eating Well with Canada's Food Guide (free copies can be ordered in many languages as well as a Food Guide for First Nations, Inuit, and Métis) My Food Guide (build your own food guide) My Food Guide Serving Tracker Eat Well and Be Active Toolkit Nutrition labelling resources 	aliment/index-eng.php	
	Caffeine recommendations	http://healthycanadians.gc.ca/kids-enfants/food-ailment/drink-boissons-eng.php	
Caring for Kids	 Good general resources for parents around promoting healthy eating habits and managing picky eating 	http://www.caringforkids.cps.ca/ handouts/healthybodies-index	
Ellyn Satter	 Many resources for parents on the Division of Responsibility in Feeding, how and what to feed children, family meals and meal planning 	www.ellynsatter.com	

Organization	Details	Web Address	
Healthy Families BC	 Contains many tips, tools and resources related to healthy eating 	http://www.healthyfamiliesbc.ca/	
Dietitian Services at HealthLink BC	 Nutrition handouts on healthy eating for specific age groups as well as for different medical conditions 	www.healthlinkbc.ca/dietitian	
	• Free access to dietitians by calling HealthLink BC at 811 and asking to speak with a registered dietitian		
	Handout on energy drinks	www.healthlinkbc.ca/healthfiles/ hfile109.stm	
Heart and Stroke Foundation	Healthy eating resources including: planning healthy meals, eating out, and eating for different life stages	http://www.healthcheck.org/page/ healthy-eating	
BC Dairy Association	Online calcium calculator	http://www.bcdairy. ca/nutritioneducation/ calciumcalculator	
National Heart Foundation of Australia	Handout on using food as a reward	www.heartfoundation.org.au/ SiteCollectionDocuments/ InfoFlyers-FoodAsReward.pdf	
ACT (Autism Community Training)	Link to service providers for children with ASD in BC, including OT and SLP	www.actcommunity.net/search/ raspprofiles.aspx	
	RASP (The Registry of Autism Service Providers) list for children under 6 years old		
	 Service providers for children over 6 years old (can use both RASP list, or other list of service providers) 	http://www.actcommunity.net/ component/actsearch/?controller= compsearch	
Canadian Diabetes Association	Free nutrition resources related to diabetes, including the glycemic index	http://www.diabetes.ca/files/ glycemicindex_08.pdf	
Kelty Mental Health Resource Centre	A Healthy Eating Quiz for parents/caregivers to test their knowledge of healthy eating, and learn about how healthy eating can impact mental health	http://keltymentalhealth.ca/ healthy-eating-quiz	

Books

Satter, E. (2005). Your Child's Weight: Helping without Harming (Birth through Adolescence). Wisconsin: Kelcy Press.

Satter, E. (2008). Secrets of Feeding a Healthy Family: How to Eat, How to Raise Good Eaters, How to Cook. Wisconsin: Kelcy Press.

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Tools and Handouts

Great Breakfast Ideas



Sumo wrestlers only eat 2 meals a day. They skip breakfast to slow down their metabolism and gain weight.¹ But if you don't eat breakfast, it's the same as trying to drive a car without gas in the tank. Or it's like superman trying to fly with kryptonite in his pocket. Your body needs a refill after its overnight 'fast'.



Reasons To Eat Breakfast



- Easier to keep a healthy body weight (i.e. not trying to become a sumo wrestler)
- Be better at thinking, remembering and getting higher grades in school
- Be healthier with a diet higher in many important vitamins and minerals, such as fibre, iron, vitamin C and calcium
- Keep your metabolism* revving

Ways To Eat Breakfast



- Eat it hot or cold
- Have leftovers from last night's dinner
- Make sure your kitchen is stocked with food (cereals, bread, peanut butter, fruit)
- Breakfast should include at least 3 out of the 4 food groups from Canada's Food Guide:
 - Fruit and Vegetable
- Grain Products
- Milk and Milk Alternatives
- Meat and Meat Alternatives
- Kids are more likely to eat breakfast if their parents and older siblings do

Making Time For Breakfast



- Set your alarm 15 minutes early
- Make lunches the night before
- Keep the TV and video games turned off
- Grab it as you run out the door for example a yogurt, piece of fruit, and a high fibre granola bar (with 5g fibre/serving)

Cold Breakfast Ideas



- Whole grain cereal**, milk, and a banana
- Whole grain toasted bagel with peanut butter (2 tbsp) and a glass of milk
- Dry whole grain cereal or low fat granola mixed into yogurt with fruit



Cold Breakfast Ideas

- Whole wheat tortilla with peanut butter and a banana all rolled up, and a glass of milk
- Home-made muffin with yogurt and a piece of fruit
- Toast or English muffin with jam, a cheese string, and melon slices
- Toast with margarine (1 tsp) and a fruit smoothie: 1 cup milk, 1/2 cup frozen fruit and 1/2 banana
- Cold leftover pizza
- The European breakfast: 2 slices ham, a cheese string, and a roll with 1 tsp butter or margarine
- Homemade parfait: low fat granola with 3/4 cup yogurt and berries

Hot Breakfast Ideas



- Whole grain waffles with applesauce and milk
- Breakfast wrap: 2 scrambled eggs with 2 tbsp shredded cheese and salsa in a whole wheat tortilla wrap
- · Leftovers from last night's dinner
- Oatmeal: mix 1/2 cup old-fashioned oats with 1 cup water. Microwave for 2 1/2 to 3 minutes (bowl should have high sides to prevent bubbling over) and top with frozen blueberries and milk
- Rice bowl with chicken and vegetables
- Red River cereal with raisins and milk
- Hard boiled egg with a crumpet and slice of ham
- 2 poached eggs with 1 cup hashbrowns and fruit

Foods That Are A Little More Sumo And A Little Less Superman

All foods are okay in moderation – there are no "good" and "bad" foods. But it is better to have some foods less often than others for breakfast, such as donuts, muffins and pastries. There's nothing wrong with having a donut every once in a while, but it shouldn't be every day. When you do eat your donut, sit down, turn off the TV, and enjoy it.

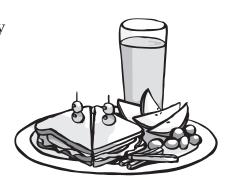
Have one special family breakfast on the weekend with waffles or crepes and whipped cream, omelets, or eggs and bacon. Items like bacon and sausage are also okay to have for breakfast once in a while, but not everyday.

- * Metabolism is the energy required to maintain life. It can be affected by the amount of food a person eats. If a person skips meals, the metabolism will decrease to ensure the body can 'survive' on less food. Even if food is eaten later to make up for the missed meal, the metabolism will remain slower, which can lead to problems staying at a healthy weight.
- **For whole grain cereal, breads and granola bars: >2g fibre/serving = good; >5g fibre/serving = great!
- ¹ Nishizawa, 1976; Yui, 2001

Great Lunch Ideas



It can be a struggle to pack a healthy lunch for children and youth. It's not easy to find food children will actually eat, and to have it made in time to get the kids off to school. This handout may not reduce all the smashed sandwiches and brown bananas at the bottom of their lunch box, but it may give you some helpful ideas. We have included some tips on how to prepare healthy lunches, how to get your children to eat them, and how maybe just to liven things up.



How To Prepare A Tasty And Healthy Lunch



- Sit down with your child and see what type of food they like in their lunch.

 Some kids like hot lunches in a thermos and some love sandwiches
- Some kids like the exact same lunch every day. That's not too bad, unless the only lunch your child will eat is not very healthy (e.g. chicken nuggets every day). Some parents have found it helpful to let their child have that lunch 3 or 4 days a week, but then have a lunch that the parents choose on the other days. Or it can help to offer a new food along with a familiar food. This can help to slowly work in other food choices. Remember, sometimes it can take 12-15 attempts before children will like a new food
- A healthy lunch should include at least 3 out of the 4 food groups in Canada's Food Guide: Fruits and Vegetables, Grains, Milk and Milk Alternatives, and Meat and Meat Alternatives
- Try to stay away from prepackaged foods. Although they are convenient, they are often very high in salt, sugar and fat
- Add a sticker, a joke, or a nice note with a lunch that will make your child smile (even if they groan, they're probably smiling on the inside)

Too Busy Playing To Eat Lunch



For many active children, it can be too exciting to eat lunch at school. All they want to do is get out and play. Some schools now schedule time for play before lunchtime, so children can burn off their excitement and sit still to eat lunch. If your child's school doesn't have this new program yet, talk to them about it. A toolkit for schools to help implement the "Play First Lunch" can be found at the following link: www.healthyeatingatschool.ca/nutrition-policies

In the meantime, if your child can't seem to get their lunch in, then provide a healthy (and a bit heartier) afternoon snack. Sometimes, a child can have a snack for lunch, and lunch for the afternoon snack.



Peer Pressure & Skipping Lunch

More and more often teenagers and even pre-teens are skipping lunch. This is a hard time of life for pre-teens and teenagers and trying to fit in with their peer group is important. It's good to have frank conversations with your children about whether or not they are eating lunch, and if not, why. Some children and youth try to diet and others just don't want to stand out in their peer group. Try to arm your children with facts about the benefits of eating lunch, such as:

- A speedy metabolism*. This helps you maintain a healthy weight
- Hunger control. Skipping meals causes increased hunger later, and a high likelihood of overeating
- If your child is actively trying to diet, it may help to explain that teenagers who try to diet often end up gaining more weight than their non-dieting peers

Keep a watchful eye on dieting preteens and teenagers. If their dieting seems to intensify, it is a good idea to discuss this with your family doctor.

Keep Lunch Safe

Many lunch foods can spoil and should not be out of a fridge for longer than 2 hours. To keep food cold, put a freezer pack in with the lunch and keep drinks like milk in a thermos. To keep foods hot, use an insulated thermos.

Lunch Ideas

(Remember, teenagers will generally need a larger lunch, and young children will need a smaller lunch)



PACK A GRAIN AND MEAT OR MEAT ALTERNATIVE

- Sandwiches:
- Meat and cheese with a little margarine and mustard
- Tuna or salmon salad
- Peanut butter and jam
- Cucumber and cream cheese
- Whole grain** crackers and cheese, crackers with tuna, crackers and soup
- Low fat granola with yogurt
- Burritos with beans and cheese or a tortilla with baked beans
- Homemade muffin with cheese or peanut butter or cottage cheese
- Leftovers: pasta and tomato sauce, rice with meat and vegetables, cold pizza

ADD A VEGETABLE AND/OR FRUIT

- Carrot sticks, celery sticks, broccoli (etc.)
 with a small amount of dip
- Apple pieces (dipped in lemon juice to prevent browning), oranges, berries, cantaloupe and melon (cut up), banana

ADD A MILK OR MILK ALTERNATIVE

 Yogurt, cheese strings (if not already provided in a sandwich or main course), milk. kefir (a fermented milk drink)

ADD A SMALL TREAT

- Animal crackers with yogurt to dip
- 2 small cookies
- * Metabolism is the energy required to maintain life. It can be affected by the amount of food a person eats. If a person skips meals, the metabolism will decrease to ensure the body can 'survive' on less food. Even if food is eaten later to make up for the missed meal, the metabolism will remain slower, which can lead to problems staying at a healthy weight.
- **For whole grain cereal, breads and granola bars: >2g fibre/serving = good; >5g fibre/serving = great!

Great Snacks



Snacks are great! Children and youth should have 1-3 snacks every day. The snacks below:

- Help to keep you full between meals so you won't overeat at regular meal times
- Give you energy to do the things you love to do
- Are great after activity
- Have 2 out of the 4 food groups from Canada's Food Guide

For very young children, the portion sizes should be smaller. For older teenagers, especially boys, the portion sizes should be larger. Encourage children and youth to eat if they are hungry, and stop when they are full.



Cold Snacks



- Apple slices with 1 tbsp peanut butter
- Triscuits (~5) with 1 cheese string
- Pear slices with 1/4 cup cottage cheese
- Home-made trail mix: 1/4 cup cereal of choice (e.g. Cheerios) + 3 tbsp raisins
 + 1-2 tbsp peanuts
- 1 small bag of mini pretzels with 1/4 cup hummus
- Celery sticks with thinly spread peanut butter (1 tbsp)
- 1/2 cup whole grain cereal (>2g fibre/serving) and milk
- Baked tortilla chips (~20-25 chips) and 2 tbsp bean dip or salsa
- 1 tbsp peanut butter on 1 slice whole grain bread
- 2 turkey slices on 1 slice whole grain bread with 1 tsp margarine or 1 tbsp mayonnaise
- 3/4 cup yogurt with fruit
- 1/2 pita pocket filled with shredded carrots, sliced cucumbers, and 2-3 tbsp cheese with 1-2 tbsp tzaziki or hummus
- Fruit kabob: cut-up fruit on a kabob stick with yogurt for dipping
- Yogurt parfait: 1/2 cup yogurt, 1/4 cup whole grain cereal (>2g fibre/serving), 1/4 cup fresh fruit
- Canned tuna or salmon on whole grain crackers (~5)
- Fruit smoothie: 1 cup milk, 1/2 cup frozen strawberries and 1/2 banana



Hot Snacks



- Cup of soup: tomato, vegetable, lentil, pea, etc. with whole grain crackers (~5)
- 1 whole grain waffle topped with 2 tbsp vanilla yogurt and 1/2 cup fresh fruit
- 1/2 English muffin topped with pizza sauce and cheese (2-3 tbsp)
- Quesadilla: small tortilla with salsa and cheese (2-3 tbsp)
- 1/2 English muffin with a sliced hard boiled egg with 1 tbsp cheese melted on top
- A few cups of air-popped (with 1-2 tsp margarine, butter or olive oil and a sprinkle of salt, or 1-2 tbsp parmesan cheese) or low-fat popcorn (without added butter or margarine)

Tips

Kids are more likely to grab snacks to go if they're ready

- Keep vegetables washed and cut up in the fridge
- Keep fruit in a bowl on the kitchen table
- Keep treats away from eye level. If your kids don't see them, they won't choose them as often

Your Own Great Snacks

Come up with snack ideas on your own using Canada's Food Guide! Remember: a healthy snack has 2 out of the 4 food groups. The food groups are: fruit and vegetables, grain products, milk and alternatives, and meat and meat alternatives.

EXAMPLE #1: _	Yogurt	+	Toast
	Food Group: A milk product		Food Group: A grain
EXAMPLE #2: _	Apple	+	Peanut Butter
	Food Group: A fruit		Food Group: A meat alternative
Now try makir	ng your own great snacks!		
SNACK IDEA #1:		+	
	Food Group:		Food Group:
SNACK IDEA #2:		+	
	Food Group:		Food Group:
SNACK IDEA #3:		+	
	Food Group:		Food Group:

Meal Planning



The best way to make sure your family eats a healthy, home cooked meal is by planning. If you know what is planned for dinner, and you have all of the ingredients, putting a meal together won't seem like such a chore.

Meals should include at least 3 out of the 4 food groups. Remember, the 4 food groups are: Vegetables and Fruit, Grain Products, Milk and Alternatives, and Meat and Alternatives. Here's an example of a meal and how to determine the food groups:

Meal: Bean and Cheese Burritos with Salad

Beans = Meat and Alternatives		Meat and Alternatives
Cheese =		Milk and Alternatives
Tortilla	=	Grain Products
Salad	=	Fruit and Vegetable
Total Food Groups	=	4 out of 4

Try to make sure your meal plans are simple, especially when starting out. Set aside time for meal planning. Involve your child in helping plan meals. Make a shopping list and do all your grocery shopping once a week. Below is a sample week of meal planning:

Sample Meal Plan (dinner):			
Sunday) Hamburger) Salad/mixed greens) Glass of milk	Food Groups = 4	
Monday	> Baked beans on toast with grated cheese on top> Steamed broccoli	Food Groups = 4	
Tuesday	Avocado and shrimp with mozzarella quesadillaRoasted asparagus	Food Groups = 4	
Wednesday	> Shake n' bake chicken and rice> Mixed greens> Glass of milk	Food Groups = 4	
Thursday	> Orzo and shredded chicken salad (with sweet peppers, and feta cheese)> Cut up cucumbers and carrots	Food Groups = 4	
Friday	Lentil Dahl with rice and plain yogurtPeas and carrots	Food Groups = 4	
Saturday	> Tuna pasta casserole (with cheese)> Roasted vegetables	Food Groups = 4	

Make your own meal plan. See if you can figure out how many food groups each meal has.

Sunday	Food Groups =
Monday	Food Groups =
Tuesday	Food Groups =
Wednesday	Food Groups =
Thursday	Food Groups =
Friday	Food Groups =
Saturday	Food Groups =



Here is a list of foods from each of the 4 food groups. You can also use this as a grocery list.

Fruits and (Vegetables		Grain Products		Milk and Alternatives	
□ Corn	□ Apple	□ Pasta	☐ Barley	□ Milk	
☐ Peas	☐ Banana	☐ Crackers	☐ Bannock	☐ Buttermilk	
☐ Broccoli	☐ Kiwi	☐ Bread	☐ Congee	☐ Chocolate Milk	
☐ Asparagus	□ Pear	□ Pita	☐ Cornbread	☐ Cheese	
☐ Edamame	☐ Peach	☐ Tortilla	☐ English muffin	☐ Cottage Cheese	
☐ Carrots	☐ Watermelon	□ Naan	☐ Waffle	☐ Fortified Soy	
☐ Cucumber	☐ Nectarine	☐ Cereal	☐ Cereal ☐ Pancake		
□ Beets	☐ Blueberries	☐ Couscous	□ Roll	☐ Kefir	
☐ Bok Choy	☐ Lemon/Lime	☐ Bulgur	☐ Rice	☐ Paneer	
☐ Gai Lan	☐ Cherries	☐ Quinoa		☐ Pudding/Custard	
☐ Squash	☐ Grapes			(made from milk)	
☐ Spinach	□ Mango			☐ Yogurt	
☐ Tomatoes	☐ Strawberry			> 0	
☐ Green Beans	☐ Raspberry	Meat and Alternatives			
☐ Potatoes	☐ Apricot	Aiternatives		New Year	
☐ Lettuce	☐ Avocado	□ Deli Meat	☐ Baked Beans	☐ Game meats	
☐ Sweet peppers	☐ Berries	☐ Tofu	☐ Refried Beans	(deer, moose,	
☐ Kale/Collards	☐ Grapefruit	☐ Hummus	☐ Peanut Butter	caribou, elk)	
☐ Yam	☐ Honeydew	☐ Canned fish	or nut butters	□ Goat	
☐ Pumpkin	☐ Guava	(salmon, tuna,	☐ Seeds (shelled)	□ Ham	
☐ Zucchini	☐ Lychee	crab)	□ Beef	□ Lamb	
☐ Cauliflower	☐ Orange	☐ Fresh fish (herring, salmon, trout)	☐ Bison/Buffalo	☐ Turkey	
☐ Cabbage	☐ Papaya	☐ Lentils	☐ Chicken	□ Eggs	
☐ Kohlrabi	☐ Pineapple	☐ Nuts (shelled)	☐ Game birds		
☐ Mushrooms	☐ Rhubarb		(partridge, grouse)		

Advice for different ages and stages...

Children

Following *Canada's Food Guide* helps children grow and thrive.

Young children have small appetites and need calories for growth and development.

- Serve small nutritious meals and snacks each day.
- Do not restrict nutritious foods because of their fat content. Offer a variety of foods from the four food groups.
- Most of all... be a good role model.



Women of childbearing age

All women who could become pregnant and those who are pregnant or breastfeeding need a multivitamin containing **folic acid** every day. Pregnant women need to ensure that their multivitamin also contains **iron**. A health care professional can help you find the multivitamin that's right for you.

Pregnant and breastfeeding women need more calories. Include an extra 2 to 3 Food Guide Servings each day.

Here are two examples:

- Have fruit and yogurt for a snack, or
- Have an extra slice of toast at breakfast and an extra glass of milk at supper.

Men and women over 50

The need for **vitamin D** increases after the age of 50.

In addition to following *Canada's Food Guide*, everyone over the age of 50 should take a daily vitamin D supplement of 10 μg (400 IU).

How do I count Food Guide Servings in a meal?



Here is an example:

Vegetable and beef stir-fry with rice, a glass of milk and an apple for dessert

250 mL (1 cup) mixed broccoli, = 2 **Vegetables and Fruit** Food Guide Servings carrot and sweet red pepper

75 g (2 ½ oz.) lean beef = 1 **Meat and Alternatives** Food Guide Serving

250 mL (1 cup) brown rice = 2 **Grain Products** Food Guide Servings

5 mL (1 tsp) canola oil = part of your Oils and Fats intake for the day

250 mL (1 cup) 1% milk = 1 Milk and Alternatives Food Guide Serving

1 apple = 1 **Vegetables and Fruit** Food Guide Serving

Eat well and be active today and every day!

The benefits of eating well and being active include:

- Better overall health.
- Feeling and looking better.
- Lower risk of disease. A healthy body weight.
- More energy. Stronger muscles and bones.

Be active

To be active every day is a step towards better health and a healthy body weight.

Canada's Physical Activity Guide recommends building 30 to 60 minutes of moderate physical activity into daily life for adults and at least 90 minutes a day for children and youth. You don't have to do it all at once. Add it up in periods of at least 10 minutes at a time for adults and five minutes at a time for children and youth.

Start slowly and build up.

Eat well

Another important step towards better health and a healthy body weight is to follow Canada's Food Guide by:

- Eating the recommended amount and type of food each day.
- Limiting foods and beverages high in calories, fat, sugar or salt (sodium) such as cakes and pastries, chocolate and candies, cookies and granola bars, doughnuts and muffins, ice cream and frozen desserts, french fries, potato chips, nachos and other salty snacks, alcohol, fruit flavoured drinks, soft drinks, sports and energy drinks, and sweetened hot or cold drinks.

Read the label

- Compare the Nutrition Facts table on food labels to choose products that contain less fat, saturated fat, trans fat, sugar and sodium.
- Keep in mind that the calories and nutrients listed are for the amount of food found at the top of the Nutrition Facts table.

Limit trans fat

When a Nutrition Facts table is not available, ask for nutrition information to choose foods lower in trans and saturated fats.

Nutrition Facts Per 0 mL (0 g)

Amount % Daily Value Calories 0 Fat 0 g 0 % Saturates 0 g + Trans 0 g Cholesterol 0 mg Sodium 0 mg Carbohydrate 0 g 0 % Fibre 0 g Sugars 0 g Protein 0 a

Vitamin A 0 % Vitamin C 0 % Calcium 0 % Iron

Take a step today...

- ✓ Have breakfast every day. It may help control your hunger later in the day.
- ✓ Walk wherever you can get off the bus early, use the stairs.
- Benefit from eating vegetables and fruit at all meals and as snacks.
- Spend less time being inactive such as watching TV or playing computer games.
- Request nutrition information about menu items when eating out to help you make healthier choices.
- Enjoy eating with family and friends!
- Take time to eat and savour every bite!

For more information, interactive tools, or additional copies visit Canada's Food Guide on-line at: www.healthcanada.ac.ca/foodauide

or contact:

Publications Health Canada Ottawa, Ontario K1A 0K9 **E-Mail:** publications@hc-sc.gc.ca **Tel.:** 1-866-225-0709 **Fax:** (613) 941-5366 **TTY:** 1-800-267-1245

Également disponible en français sous le titre : Bien manger avec le Guide alimentaire canadien

This publication can be made available on request on diskette, large print, audio-cassette

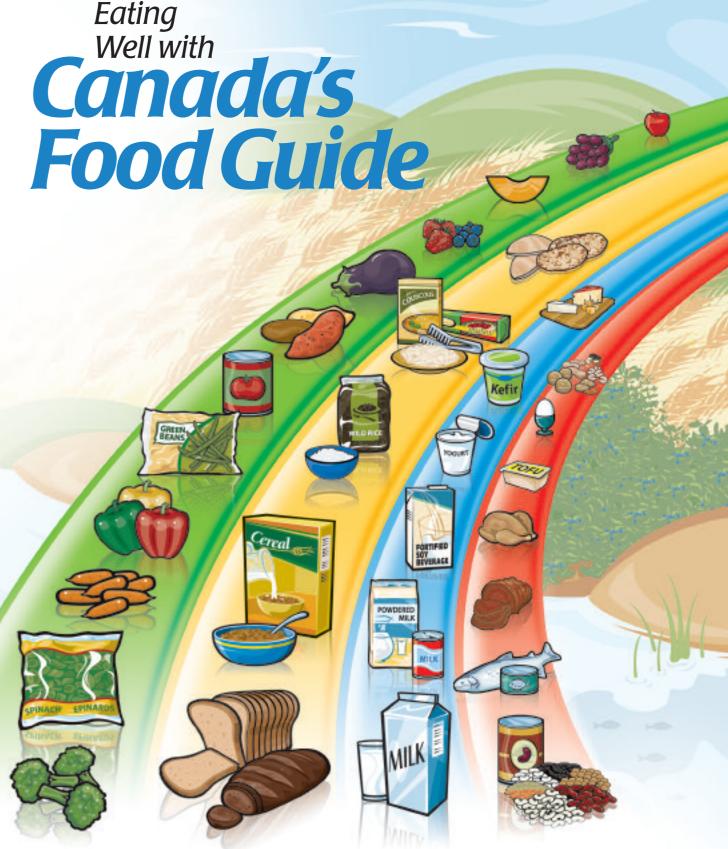
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Health Canada

Your health and safety... our priority.

Votre santé et votre sécurité... notre priorité





Recommended Number of Food Guide Servings per Day

	Children			Children Teens		ens	Adults				
Age in Years Sex	2-3	4-8 irls and Bo	9-13	14 Females	-18 Males	19 Females	-50 Males	51 Females	+ Males		
Vegetables and Fruit	4	5	6	7	8		8-10		7		
Grain Products	3	4	6	6	7	6-7	8	6	7		
Milk and Alternatives	2	2	3-4	3-4	3-4	2	2	3	3		
Meat and Alternatives	1	1	1-2	2	3	2	3	2	3		

The chart above shows how many Food Guide Servings you need from each of the four food groups every day.

Having the amount and type of food recommended and following the tips in Canada's Food Guide will help:

- Meet your needs for vitamins, minerals and other nutrients.
- Reduce your risk of obesity, type 2 diabetes, heart disease, certain types of cancer and osteoporosis.
- Contribute to your overall health and vitality.

What is One Food Guide Serving? Look at the examples below.

½ bagel (45 g)



Fresh, frozen or canned vegetables 125 mL (½ cup)



Cooked: 125 mL (½ cup) Raw: 250 mL (1 cup)



canned fruits 1 fruit or 125 mL (½ cup)

Cold: 30 g





Make each Food Guide Serving count...

wherever you are – at home, at school, at work or when eating out!

▶ Eat at least one dark green and one orange vegetable each day.

- Go for dark green vegetables such as broccoli, romaine lettuce and spinach.
- Go for orange vegetables such as carrots, sweet potatoes and winter squash.

▶ Choose vegetables and fruit prepared with little or no added fat, sugar or salt.

- Enjoy vegetables steamed, baked or stir-fried instead of deep-fried.
- **→** Have vegetables and fruit more often than juice.

▶ Make at least half of your grain products whole grain each day.

- Eat a variety of whole grains such as barley, brown rice, oats, quinoa and wild rice.
- Enjoy whole grain breads, oatmeal or whole wheat pasta.

▶ Choose grain products that are lower in fat, sugar or salt.

- Compare the Nutrition Facts table on labels to make wise choices.
- Enjoy the true taste of grain products. When adding sauces or spreads, use small amounts.



1 slice (35 g)

Milk or powdered milk (reconstituted) 250 mL (1 cup)



Flat breads

½ pita or ½ tortilla (35 g)





bulgur or quinoa

Cooked rice,





Hot: 175 mL (¾ cup)





50 g (1½ oz.)

125 mL (½ cup)

Cooked pasta

or couscous

▶ Drink skim, 1%, or 2% milk each day.

- Have 500 mL (2 cups) of milk every day for adequate vitamin D.
- Drink fortified soy beverages if you do not drink milk.

▶ Select lower fat milk alternatives.

Compare the Nutrition Facts table on yogurts or cheeses to make wise choices.

Cooked fish, shellfish, poultry, lean meat 75 g (2 ½ oz.)/125 mL (½ cup)





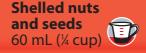












- ▶ Have meat alternatives such as beans, lentils and tofu often.
- **▶** Eat at least two Food Guide Servings of fish each week.*
- Choose fish such as char, herring, mackerel, salmon, sardines and trout.

> Select lean meat and alternatives prepared with little or no added fat or salt.

- Trim the visible fat from meats. Remove the skin on poultry.
- Use cooking methods such as roasting, baking or poaching that require little or no added fat.
- If you eat luncheon meats, sausages or prepackaged meats, choose those lower in salt (sodium) and fat.



Oils and Fats

175 mL (¾ cup)

• Include a small amount – 30 to 45 mL (2 to 3 Tbsp) – of unsaturated fat each day. This includes oil used for cooking, salad dressings, margarine and mayonnaise.

175 mL (¾ cup)

- Use vegetable oils such as canola, olive and soybean.
- Choose soft margarines that are low in saturated and trans fats.
- · Limit butter, hard margarine, lard and shortening.





Enjoy a variety of foods from the four food groups.



Satisfy your thirst with water!

Drink water regularly. It's a calorie-free way to quench your thirst. Drink more water in hot weather or when you are very active.

* Health Canada provides advice for limiting exposure to mercury from certain types of fish. Refer to www.healthcanada.gc.ca for the latest information.

MODULE **03**Physical Activity

MODULE 03 Physical Activity

This module is comprised of the following sections:

SECTION 1: Key Messages and Frequently Asked Questions

SECTION 2: Discussing Physical Activity with Children and Youth

SECTION 3: Addressing Challenges to Physical Activity

SECTION 4: Medications and their Effect on Physical Activity

SECTION 5: Resources and Handouts



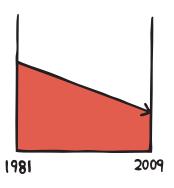
The American Academy of Sports Medicine found that nearly two thirds of patients would be more interested in exercise to stay healthy if their health care practitioner had advised them and given them resources⁷

Regular physical activity (PA) is a key contributor to health for children and youth. The evidence for the positive health benefits of physical activity is plentiful, and most people realize the importance of physical activity and exercise for reducing cardiovascular risk and improving other measures of health. Physical activity can help to increase energy, improve sleep, and contribute to better performance. It is also necessary for normal growth and development for children and youth with effects on aerobic capacity, muscle strength, bone and connective tissue growth, as well as agility. Physical activity, along with diet and sleep, are all modifiable risk factors for chronic disease.

There is evidence to suggest the use of physical activity and exercise as a strategy to promote health in a variety of mental health conditions.⁵ In some cases, being physically active is especially important to help prevent complications from taking certain types of medications (e.g. second generation antipsychotic [SGA] medications). However, for children and youth with mental health challenges, their condition may make being physically active difficult. For example, children with depression can feel too tired or unmotivated to be active, or some children may have difficulty interacting with others in team sports.



Fitness levels of Canadian children and youth have declined significantly between 1981 and 2009 as reported by the Canadian Health Measures Survey⁶



The benefits associated with being physically active are not always motivating factors for children, in particular those with mental health concerns. Challenges to engaging in physical activity need to be addressed individually in order to assist children, youth and families to begin or maintain a healthy lifestyle including physical activity.

This module will provide you with information and tools to give exercise and physical activity advice, and address specific obstacles children and youth with mental health challenges may have to being physically active.

SECTION 01

Key Messages and FAQs

Although most people are aware that physical activity/exercise has benefits or have been told they "should exercise", many do not know what to do, or how to get started. Here are some frequently asked questions with suggestions for answering.

Q: WHAT IS THE DIFFERENCE BETWEEN PHYSICAL ACTIVITY AND EXERCISE?

A: Although physical activity and exercise are often used interchangeably, they do have different definitions. Physical activity is any movement of the body that results in using energy. Exercise is a subset of physical activity. Generally, it has structure, is planned, is repetitive and has a specific purpose or objective. Objectives may include improving fitness, physical performance or health.

Q: HOW MUCH IS ENOUGH?

A: The Public Health Agency of Canada (PHAC) and the Canadian Society for Exercise Physiology (CSEP) have provided guidelines encouraging children and youth to be physically active for a minimum of 60 minutes per day at moderate to vigorous intensity. These guidelines are based on studies showing increased levels of physical activity lead to greater health benefits. The guidelines have been recently changed from 60-90 minutes of physical activity to a minimum of 60 minutes and up to several hours of at least moderate intensity activity. This change describes minimal standards for the amount of physical activity children and youth should be getting most days of the week. The CSEP Guidelines for both children and youth can be found at the back of this module. In addition, guidelines for the early years (0-4 years) are also available from: www.csep.ca/guidelines

Individual goals and starting points are most important in determining how much activity is enough. If a young person's activity baseline is low, it can be overwhelming to be told to be physically active for 60 minutes. Inactive youth need an incremental approach to achieve the minimum of 60 minutes of moderate to vigorous physical activity (MVPA) per day.

Activity logs can be helpful when trying to determine present baseline of activity. Activity logs can be found at: www.physicalactivityline.com



- Look at the child or youth's baseline when determining how to make changes. These changes should be made slowly and progressively
- When starting to be physically active, young people need to realistically look at what they can do and not what they should do



Ask children and youth to think about including activities of daily living such as walking to school or household chores. All these minutes add up



- Training and active recreation need to be offered in a positive manner
- Remind families that they also need to fuel themselves to be able to perform (for information on healthy eating, see Module 2)

Q: DO I NEED TO BE ACTIVE EVERYDAY?

A: PHAC and CSEP recommend 60 minutes or more of moderate to vigorous physical activity on most days of the week for children and youth. Being realistic and looking at the child or youth's starting point can help to determine how many days they should be active; this is dependant on the type of activity and what their individual goals are. For example, with resistance training rest days are essential; benefit to muscle as well as bone is seen in training programs in as little as 2 times per week. Additional information on different types of physical activity can be found in the resource section (look under 'Public Health Agency of Canada').

Q. CAN I EXERCISE TOO MUCH?

A: In general, more exercise is usually considered better. However, some people engage in extreme levels of exercise. In those with body image problems or eating disorders, exercise addiction can lead to a dependence on exercise as much as dieting. Too heavy a focus on weight loss through exercise can lead to an obsessive attitude towards exercise. Excessive exercisers tend to have negative body images and weight preoccupation. Exercise addiction can also be seen in those with obsessive-compulsive disorder (OCD) and bipolar disorder. Encouraging a realistic progression of exercise activity is important, as is avoiding overtraining (for example, in one particular sport) which can lead to injury.

If you suspect over-exercising which may be related to an eating disorder, obsessive-compulsive disorder or bipolar disorder, resources can be found at: keltymentalhealth.ca

Q. DO I STILL NEED TO BE PHYSICALLY ACTIVE IF I'M NOT OVERWEIGHT?

A: Reasons for being physically active go well beyond maintaining a healthy weight. The evidence indicates that physical activity appears to reduce the risk of chronic conditions, including cardiovascular disease, stroke, hypertension, breast cancer, colon cancer, type II diabetes and osteoporosis.¹ Physical activity contributes to an individual's overall fitness and for children it can provide immediate benefits to growth and development (for example, bone building and muscle strength). Fit individuals who are obese have a lower risk of all-cause mortality than do unfit normal-



Encourage children, youth and families to think beyond exercise for weight loss and think more about it in terms of increased energy, improved sleep, and better performance



Exercise should be fun, not a punishment or a consequence



TIPS FROM FAMILIES:

Talk with your child or youth about physical activity — start with their ideas.
Ask your child to list their favourite activities and anything new they would like to try

The Guide to Healthy Living for Families, developed by The F.O.R.C.E. Society for Kids' Mental Health weight or lean individuals.^{10,11} In fact, studies have demonstrated clear health gains without weight loss.^{12,13} This is especially true in children, as they are still growing. Unfortunately the preoccupation with weight sometimes causes some people to view other benefits as lesser. Encourage children, youth and families to think beyond exercise for weight loss and think more about it in terms of increased energy, improved sleep, and better performance.

Q. WHAT IS THE BEST TYPE OF PHYSICAL ACTIVITY?

A: Physical activity needs to be fun, stimulating and rewarding for the child or youth. The best type of activity is determined by individual goals as well as likes and interests. If there are specific medical/health goals, guidelines (including frequency, intensity, type and time) for addressing these specific goals can be found in the following articles: Evidence based physical activity for school-age youth³ and Systematic review of the health benefits of physical activity and fitness in school age youth.⁴ In addition, recommendations for a physical activity strategy in children and adolescents at risk for metabolic syndrome can be found in this article: Physical activity as the main therapeutic tool for metabolic syndrome in childhood.²5

Children should play and explore all types of movement as soon as they are able in order to encourage physical literacy (fundamental movement skills which lay the foundation for future skills) throughout life. This creates a base for being able to engage in more structured activities later in life.¹⁴

Ideally, we want to encourage activity that is well rounded which includes cardiovascular or aerobic conditioning, muscular strength and endurance, flexibility as well as balance and agility (refer to Section 2 for definitions of terms). Additionally, a handout can be found at the back of this module with a list of different activities families can try.

Q: WEIGHT TRAINING AND YOUTH: IS IT SAFE?

A: According to the CSEP, weight training for children and adolescents is considered safe if performed in proper posture, using appropriate equipment and with supervision. To make improvements, rest days are needed in between bouts of resistance exercise.¹⁵



A worksheet for decreasing screen time can be found at the back of this module



Q. HOW MUCH SCREEN TIME SHOULD BE ALLOWED DAILY?

A: The Canadian Pediatric Society recommends a maximum of 2 hours per day of screen time for children and youth. Limiting sedentary behaviour to less than 2 hours per day can lead to increased physical activity and health. The CSEP has recently introduced sedentary behaviour guidelines, which can be found at the back of this module. See below for some suggestions on how to help families decrease screen time.

Ideas To Help Decrease Screen Time:

- Start with determining how much time the child spends in front of a screen, and try to incrementally decrease this time by 10%. For instance, 2 hours = 120 minutes, so screen time should be decreased by 12 min total. Take 6 min off every hour and get up and move around
- Ask children how they would like to use their screen time specifically
- Avoid having a television in the child's bedroom (see Module 5 for sleep effects)
- Keep the computer in a family area
- Create a contract with kids: build in breaks for activity with screen time; again, it is not all or none
- Have stickers on the remote control with commercial break activity ideas
- If kids do play video games, try to opt for the active type; although not a replacement for getting active play it could be a bridging activity

Q. WHY DOES IT HURT WHEN I START EXERCISING?

A: The body is responding to an additional "stress" placed upon it when we exercise. We are challenging both the cardiovascular and musculoskeletal system to varying degrees when we begin to exercise. In fact, this stressing of the systems is necessary in order to make fitness and health gains. It is important to note that the exercise should be gradual in nature to allow the adaptations to occur without causing injury. Warming up our bodies by engaging in light activity prior to heavier exercise or activity allows all systems to prepare for the stress we are going to put upon them.

Delayed onset muscle soreness often accompanies the starting of an exercise program. Adequate rest and recovery are essential as is engaging in different types of activities. Families and young people should be aware of proper training protocols which include gradual progression of exercise, including warm up and cool down components in the activity, and stretching when muscles are warm.

Q: WHAT CAN I DO TO PREVENT INJURIES?

A: In general, sports/athletic injuries fall into 2 main categories – overuse and acute. Overuse injuries are generally preventable with early detection and by maintaining or improving flexibility and strength, employing gradual and progressive training methods, as well as by using proper body mechanics. Acute injuries can be prevented through a combination of the above, along with ensuring proper warm up prior to play, cool down after play, and by taking the information below into consideration.

Much of what is recommended in general for injury prevention is also recommended for those with mental health challenges. See the Safe Kids Canada website (www.safekids.ca) for injury prevention suggestions.



Children and youth with mental health challenges may be at greater risk of sustaining injuries than those without mental health challenges.^{22,23} The reasons for this can include:

- Impulsivity, hyperactivity and inattention
- Decreased judgment in recognizing a potentially dangerous situation
- Being overweight, as the child/youth may be more prone to injuries (e.g. disc or joint injuries)
- Tics, which can lead to overuse or acute injuries
- Difficulty or inability to function independently
- Developmental coordination disorder or motor difficulties

For those with mental health challenges specific concerns could be addressed by:

- Ensuring developmentally appropriate activities
- Individualized programming
- Ensuring adequate protective equipment at all times
- Clearly stating and enforcing safety rules, as well as reminding children of rules at appropriate times
- Providing adequate supervision to address behavioural concerns, especially in unfamiliar or high risk situations

Additional injury prevention resources can be found in the 'Resources and Handouts' section at the back of this module.

SECTION 02

Discussing Physical Activity with Children and Youth

This section discusses some ways to discuss physical activity with children and youth, how to assess baseline using the FITT principle, and some definitions of physical activity terminology that can be useful when talking with families.

Discussing the benefits of physical activity may seem important to you; however it may not be what engages children and youth to make changes. Discussing what is important to the family is essential in determining whether they are ready to make changes. In addition, psychosocial factors may influence the ability of the child and family to be physically active (e.g. bullying, socioeconomic status), and should be identified and discussed with the family to ensure that goals are realistic and appropriate. SMART goal setting (Specific, Measurable, Action Plan, Realistic, and Timely) can be used to help families break down their long term plan into small achievable goals to reach a specific target. For more information and tools for SMART goal setting, see Module 1.

It is important to acknowledge that it can be difficult to start or maintain being physically active. Encouragement and praise for what the child or youth is already doing well can help to build rapport with the family, and motivate the young person to start or continue.

Assessing Where the Young Person is at: The FITT Principle

The FITT Principle

FREQUENCY INTENSITY

TIME

TYPE OF ACTIVITY

Being able to provide advice on physical activity and exercise starts with assessing where the child or youth is at currently. Determining baseline gives us the information we need to be able to support families in making changes, if changes are needed. It also provides an opportunity to recognize and acknowledge what the young person is doing well and their efforts. In order to do this we need to ask questions about the types of activity as well as the frequency, intensity and amount of time the child or youth spends in activity, using the FITT Principle.

The FITT principle can be used to assess baseline as well as to prescribe exercise. Exercise prescription is used in helping to meet specific objectives of the child/youth. If you are unsure about prescribing exercise refer to a physiotherapist, exercise specialist or kinesiologist in your community.

The four components of the FITT principle include:

FREQUENCY

How often the activity is performed. Frequency is generally expressed in sessions, episodes, or bouts per week.

INTENSITY

How hard a person works to do the activity. Intensity refers to the rate at which the activity is being performed (e.g. how fast you are going) or the amount of effort required to perform an activity or exercise (e.g. 7/10 on a Rate of Perceived Exertion [RPE] scale). See below for more information on RPE.

RATE OF PERCEIVED EXERTION (RPE)

When using RPE, ask the child or youth to think about how hard he/she is working (it is not about how hard the exercise is). Remind the child/youth that there is no right or wrong answer; you can ask them to be honest with how they are feeling. Each point on the 10 point scale has a descriptor, allowing the user to rate their subjective effort of activity or exercise being performed. The words give a rough idea of how some people describe how hard they are working:

	T. C.
Rating of exertion	Subjective feeling
O (Rest)	Nothing at all
1 (Light)	Very light
2	Light
3	
4 (Moderate)	Moderate
5	Somewhat hard
6	Hard
7 (Vigorous)	Very hard
8	
9	Very, very hard
10 (Maximum)	Maximal



Rate of Perceived Exertion (RPE) can be used to determine the intensity one is working at









A handout is provided at the back of this module to help with exercise prescription and tracking

The intensity one should work at is determined by their individual goal. The general guidelines suggest working at moderate to vigorous intensity (i.e. 4-8/10) for a minimum of 60 minutes per day.

TIME

The length of time in which an activity or exercise is performed, generally expressed in minutes.

TYPE

The type or kind of physical activity can take many forms, for instance: aerobic, strength, flexibility, or balance.

Here is an example of a simple table you could use to compare where the child/youth is currently at (baseline) and what they will be working towards. Remember that this should be a slow and gradual progression, and current efforts should be acknowledged.

	Present	Prescription*
Frequency		Most days of week, preferably daily
Intensity		Moderate to vigorous
Time		60 min of accumulated activity
Туре		Whatever you find enjoyable

^{*}Note that this prescription is guideline based and not individual

For additional information, see the resource section (under 'Canadian Society of Exercise Physiology' and 'Public Health Agency of Canada').

Terminology



There can be confusion regarding the meaning of the terms **physical activity**, **physical fitness** and **exercise**. These terms, though often used interchangeably, have different meanings

The following are definitions which may assist you in discussing physical activity with families. Depending on their concerns, you may be providing general advice on physical activity, or giving more specific "exercise prescription" for a specific condition. See Section 1 (Key Messages and FAQs: 'What is the best type of physical activity?') for more information on giving specific advice. For a glossary of physical activity terms refer to: http://www.csep.ca/CMFiles/Guidelines/PAGuidelinesGlossary_E.pdf

PHYSICAL ACTIVITY

Any movement of the body that results in using energy.

FITNESS

A trait or measure that reflects a combination of activity behaviours, genetics and overall health of organ systems. It is important to note genetics and training both contribute to fitness level. Being more physically active can contribute to one's fitness as long as the activity is of appropriate duration and intensity.

EXERCISE

A subset of physical activity that is generally a structured activity. Exercise can be prescriptive. It can be used as a treatment or intervention to be followed, which can be effective in assisting to mitigate health problems. Those children/youth with mental health concerns can also have co-morbid conditions.

CARDIOVASCULAR EXERCISE (CV)

Any physical activity or exercise which significantly increases heart rate (HR). Cardiovascular exercise is often referred to as "cardio" or "aerobic" or "endurance". Activities range from walking and gardening to running, bicycling, jumping rope, and swimming.

FLEXIBILITY EXERCISE

This type of exercise involves taking a muscle through range to increase or maintain its length and increase joint mobility. This helps keep us moving better and can help to prevent injuries in the long term. This includes stretching activities, and activities such as yoga.

RESISTANCE TRAINING/STRENGTH TRAINING/WEIGHT LIFTING

Any activity that involves working against resistance, force or gravity (e.g. weights, bands, or your own body weight).

MUSCULAR STRENGTH AND ENDURANCE

Overlap between muscle strength and CV. Some activities need both, for example running on a treadmill or hiking can be limited by CV or by local muscular fatigue (legs too tired to go on versus shortness of breath).

OVERLOAD PRINCIPLE

In order for any muscle (including the heart) to get stronger it must be "overloaded" or worked against a greater load than normal. It is the basis for improving physical fitness. The concept is based on "overloading" the muscles by working them more than they are used to, challenging the tissues to do more and breaking down the muscle in order to rebuild stronger than previous.



SECTION 03

Addressing Challenges to Physical Activity

Individual, social and environmental factors can all play a role in the ability to be physically active. Children and youth with mental health and substance use concerns have unique challenges to engaging in physical activity. This section discusses some of the challenges families have identified and provides suggestions for how to face these challenges.

Common Challenges to Being Physically Active

The following chart lists common challenges that families encounter and tips on how to discuss overcoming these challenges. The *Guide to Healthy Living for Families* provides some additional tips identified by families. This guide can be found online at: keltymentalhealth.ca/toolkits

Challenge	Tips on how to discuss challenges
Lack of energy	 Difficult to overcome, but short bursts of activity can be a start versus an all or none approach
	 Let the family know that you need to expend energy to gain energy
Child/youth does not want to go outside	 Indoor activities can be a good start, such as exercise videos, TV/screen time breaks, Wii Fit, dancing, or weights. Although active video gaming is a good way to replace a completely sedentary activity, it is not a replacement for getting outside - encourage using this as a bridging activity
Pain or sore muscles	Acknowledge what they are experiencing
	 See a health professional in the area to assess for specifics of why; a comprehensive physical assessment can assure them the tissues in the affected area are not damaged
	• Educate as to how stronger muscles function better, and can lead to less soreness
	 Encourage progressive increases versus too much too soon so muscles can accommodate to change; remind child/youth that balance of activity and rest is essential
	 Poor sleep can also be part of muscle soreness

Challenge	Tips on how to discuss challenges					
Other children refuse to include or tease	 Find resources in the community where there is more acceptance (e.g. Community Link program in Vancouver) 					
	 Identify who can be a motivator/mentor 					
	• Enlist help from friends with older children or uncles/aunts etc. that have an interest in an activity that may interest your child, e.g. church groups, boys and girl clubs					
	• Consider alternatives to PE classes; suggestion to get credit for other types of activity (e.g Tae Kwon Do for a PE credit if won't or can't participate – child may need a medical note)					
Limited social skills	Social support may be important to produce increases in physical activity					
	Parents can help get them started					
	 Community based programs to pair up kids with a buddy e.g. Big Brothers/Big Sisters/Best Buddies program 					
Weight gain makes physical activity more difficult	 Non weight bearing activities would be the best place to start, e.g. bike (stationary or road), water exercises, resistance training 					
	• Remember when baseline is low to begin with, don't actually need to do much to start					
Financial constraints	Try suggesting used equipment or free, low cost activities					
	 Explore funding through community groups 					
	 Active transport – walking is easy and free, but most kids don't find it fun. They might be more interested in rollerblading, biking, skateboarding, etc. 					
	• Programs such as JUMP START, Kidsport BC, Federal Child Fitness Tax Credit					
Physical injury/weakness/ high or low tone/coordination/	 Assessment by a health care professional to deal with injuries and physical barriers (occupational therapy or physiotherapy) 					
physical literacy/developmental coordination disorder (DCD)/ sensory issues	• Independent exercise programs can be set up by local physiotherapists (sometimes hospital coverage/MSP/extended benefits)					
,	 Suggesting activities that focus on balance or coordination 					
	 With DCD, team sports may not be motivating; focusing on more individual, non-competitive sports or small group activities may be more appropriate 					
	With all children, need to think about their individual goals and preferences					
	 Remind families that not everyone likes or enjoys the same activities, or even repeating the same activities 					

Challenge	Tips on how to discuss challenges
Has not found an activity they like yet	 Exposure – families need to both encourage and expose children to different activities without pushing them into activities in which they have no interest
	 Young people who do not like traditional "sports" may need to focus on alternative types of activities; some school PE programs are recognizing this and providing alternative type programs
	 Free play, recreational sports and individual training plans provide options for children who are not interested in competitive or team sports
	See the handout at the back of this module for a list of many different activities families could try

Mental Health Challenges and Physical Activity

With mental health concerns, there are a number of factors that can impact the ability of the child or youth to participate in physical activity OR physical activity can have effects on mental health concerns. The table below outlines common findings in children and youth with their specific mental health concern.

Condition/Concorn	Summary of evidence and recommendations
Condition/Concern	Summary of evidence and recommendations
General mental health	 Association between sport and improved mental health²¹
Alcohol use	 Increased fracture risk, decreased bone building, bone loss or lower bone density – may be a consideration if prescribing exercise
Autism spectrum disorder	 Rehab of gross motor skill through structured and repetitive physical activities (rehab/physiotherapy/occupational therapy)
	 Assist in the development of strength, coordination and normal movement patterns
	 Adapted physical education¹⁷
Anxiety	 Exercise decreases reported anxiety scores in healthy children when compared to no intervention; type of exercise/high low intensity is not specified; small effects seen; unclear of effects for those in treatment^{3,16}
Depression	 Exercise decreases reported depression scores when compared to no intervention; type of exercise/high or low intensity is not specified^{16,18}
	 Generally effects are noted with aerobic type exercise^{3,16}
Low self esteem	 Positive short term effects on self esteem in children and youth who exercise (as part of comprehensive intervention)¹⁹
Schizophrenia	 Regular exercise has health effects on both physical and mental measures; need more research on types of exercise²⁰
	 Higher incidence of obesity/other conditions and of inactivity within this population³
	• Incidence of obesity may be compounded by the side effects of antipsychotic medications (see Section 4: Medication for more information)

SECTION 04

Medications and their Effects on Physical Activity

Many medications used to address mental health concerns can produce unwanted physical effects for children and youth. Be aware and advise families of the side effects of these medications, as they can have significant effects on the child or youth which can continue into adulthood. A few classes of medications have more severe metabolic implications and are described below. Other medications may affect physiological responses such as heart rate. For a list of common psychiatric medications and general side effects, see the *Commonly Used Psychiatric Medications Monitoring Guide for Children and Adolescents*, available as a link from Module 6.

SECOND GENERATION ANTIPSYCHOTICS

(e.g. Aripiprazole, clozapine, olanzapine, paliperidone, quetiapine, risperidone, ziprasidone):

Children and youth treated with second generation antipsychotic (SGA) medications are at greater risk for developing lipid and glucose abnormalities, weight gain, hypertension, and metabolic syndrome when compared to those not taking these medications. Lifestyle interventions, including increased physical activity, may assist in preventing problems related to SGA use and assist in improving overall health, without necessarily decreasing weight. Several intervention studies performed in obese children and adolescents showed the efficacy of physical activity on metabolic syndrome parameters. NOTE: SGAs may also be known as or referred to as atypical antipsychotics (AAPs) by some health professionals and families.

Resources and Handouts



In this section, you will find resources that may be helpful to both yourself as well as to the families you see in your daily practice. At the end of this section, you will find some tools and handouts. Some of these tools will be useful for you to use with the children and youth you see (e.g. assessment tools), while others can be given to children, youth or parents/caregivers as a handout.

Online Resources

FOR PROFESSIONALS

GENERAL RESOURCES							
Organization	Details	Web Address					
Canadian Pediatric Society	 Healthy active living resources, posters, and quick reference sheets 	www.cps.ca					
	Prescription for healthy active kids						
	 Position papers (e.g. Healthy active living: Physical activity guidelines for children and adolescents) 	www.cps.ca/documents/position/ physical-activity-guidelines					
Canadian Society for Exercise Physiology	 Physical activity and sedentary behaviour guidelines for children and youth (also found at the back of this module) 	www.csep.ca/guidelines					
	Position statements and knowledge translation articles	www.csep.ca (under publications)					

FOR FAMILIES

GENERAL RESOURCES		
Organization	Details	Web Address
Public Health Agency of Canada	Physical activity information	www.phac-aspc.gc.ca/hp-ps/hl- mvs/pa-ap/index-eng.php
	 Tips to get active (tip sheets for different age groups) 	www.phac-aspc.gc.ca/hp-ps/hl-mvs/pa-ap/04paap-eng.php
Participaction	• Tips for parents on how to get their kids active	www.participaction.com
	• Fun tips and pedometer chart	
	After school activity guide	
	Physical activity tracker	
Kidnetic	Website geared to kids	www.kidnetic.com
	 Interactive games and challenges to learn about healthy food and activity 	
www.healthyfamiliesbc.ca	Physical activity articles and resources	www.healthyfamiliesbc.ca
Physical Activity Line	Free resource for practical and trusted physical activity information	www.physicalactivityline.com/
Sustainable Childhood Obesity Prevention Through Community Engagement (SCOPE)	 Program aimed at linking families in some B.C. communities to develop an obesity prevention action plan 	www.childhood-obesity-prevention. org/about-scope/faqs
ACCESSING PROFESSIONALS		
Organization	Details	Web Address
BC Physiotherapy Association	• To find a physiotherapist in your community (B.C.)	www.bcphysio.org
BC Society of Occupational Therapists	To find an occupational therapist in your community (B.C.) (Click on "Use OT finder")	www.bcsot.org
Canadian Association of Occupational Therapists	To find an occupational therapist in your community (Canada)	www.caot.ca

FOR FAMILIES (CONTINUED)

SAFETY AND INJURY PREVENTION						
Organization	Details	Web Address				
About Kids Health (Hospital for Sick Children)	 Information on ADHD and injuries 	www.aboutkidshealth. ca/En/ResourceCentres/ ADHD/AboutADHD/Pages/ ADHDandInjury.aspx				
CanChild	Information on developmental coordination disorder (DCD)	dcd.canchild.ca				
Safe Kids Canada	General safety/injury prevention tips	www.safekidscanada.ca				
BC Children's Hospital	 Information about BCCH's Safe Start program 	www.bcchildrens.ca/ KidsTeensFam/ChildSafety/ SafeStart/default.htm				

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Exercise Prescription



General Information:		

Exercise Prescription

Four components make up exercise prescription, which make up the FITT Principle:

FREQUENCY	INTENSITY	Тіме	Түре
How often you exercise?	How hard you exercise?	How long you exercise?	What kind of exercise?
You should try to engage in some form of physical activity on most, preferably all days of the week. Resistance training however should not be on consecutive days.	You can gauge how hard you work by using: • The "Talk Test" - you should be able to say 2 sentences when exercising, you should not be able to sing. • Rate of Perceived Exertion (RPE) (see below).	Depends on your starting point. Trying to build up to 60 minutes (minimum) of activity on each day; this can be broken up into smaller bits of time.	Any type of activity you enjoy. Try to include activities that get your heart beating, your muscles working, and maintain your flexibility.

Rate	Rate of Perceived Exertion (RPE) Scale (How hard did I work?)									
0	1	2	3	4	5	6	7	8	9	10
Nothing Very easy/ at all light		Moderate	Somewhat hard	Hard	Very hard	d	Very, very hard	Maximal		
COMPONENTS OF FITNESS		EXAMPL	ES							
Cardio	vascular/ <i>A</i>	Aerobic								
Flexibility										
Muscular strength and endurance										
Balance										
-				1						



NAME		
DATE		
EXERCISE TYPE		
EXERCISE TIME	WARM UP	
	EXERCISE	
	COOL DOWN	
EXERCISE FREQUENCY		
INTENSITY	RPE	
	TARGET HR	
HOW TO PROGRESS		

Benefits/Costs Of Exercise

Try listing the pros and cons of starting regular exercise and of remaining inactive. There is no right or wrong answer.

Example:

Pros Pros	Pros • more energy	Pros
	feel bettersleep better	more time to watch TV
Cons Cons	Cons • have to buy equipment	Cons ent/shoes • worried about health
List solutions:		,

How Much Time do you Spend...?

Time Comparison Activity for Children and Youth



Colour in how many minutes you spend every day **in front of a screen**

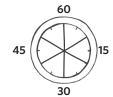
(for example: your TV, computer, or phone)

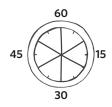
Each clock is one hour (60 min.)

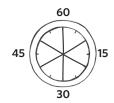
Total Time: ______
(The maximum recommended amount

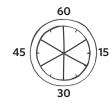
(The maximum recommended amount of screen time per day is 2 hours)

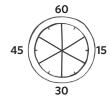


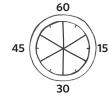


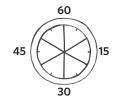


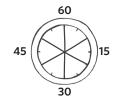












Colour in how many minutes you spend every day **being active**

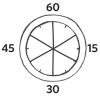
(for example: playing outside, walking to school, or even doing chores around the house)

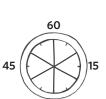
Each clock is one hour (60 min.)

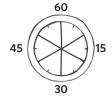
Total Time: _____

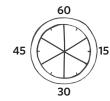
(The minimum recommended amount of physical activity per day is 60 minutes and up to several hours)

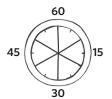


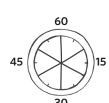


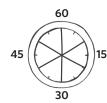


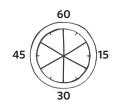












Time Comparison Activity for Children and Youth (cont...)



Compare	How many minutes do you spend in front of a screen?			
	How many minutes do you spend being physically active?			
Do you think you can decrease your screen	Ways I can decrease my screen time:	Some ideas you could try:		
time by about 10% (or 6 minutes for every hour)?	1.	1. Think about HOW you would like to use your screen time – would you rather play a computer game or watch a TV show? Choose 1 or 2 you really like		
every floury.	2	2. TVs and computers in bedrooms can be distracting – try moving them to another part of the house		
		3. Every 30 minutes in front of a screen, take a 5 minute break		
	3	4. Be active during commercial breaks – try doing jumping jacks, or walking around the house. This time adds up!		
Do you think you can increase the amount	Ways I can increase my physical activity:	Some ideas you could try:		
of time you spend being active by about	1	1. The BEST activity is one that you enjoy doing – think about what you like to do		
10% (or 6 minutes every hour)?	2	2. Try skateboarding, walking, taking your scooter or riding your bike to school once or twice a week		
		3. Put on some music and dance around your living room		
		4. Challenge your parents to a race or competition		
	3	5. Household chores, like making your bed, also count		

Activities Your Family Can Try



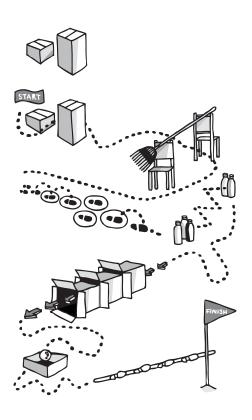
Ideas for being active, playing and having fun with your family

Kids will be more likely to think being active is fun if you show them that it is fun and that it feels good. Think about activity as something you do together as a family.

Play at the playground:

Try "follow the leader". Let your child lead or have them copy you:

- > Climbing on monkey bars
- > Crawling through tunnels
- > Up and down the slide
- > Running and touching all the fences
- **>** Balancing and walking across logs





Set up an obstacle course:

- > Brainstorm with your kids about what you want to put into your obstacle course
- Think about ways to move: step, walk, creep (on all fours), crawl (on belly), roll, somersault, jump, hop, leap, run, etc.
- > Think about things in your house that you can use, such as: couches, chairs, tables, mattresses, plastic hoops, big blocks, gym mats, cushions, mattresses, telephone books, rope, etc.



Play in the house:

- Try taking different exercise videos out of the library. Look for ones geared to your child's/youth's age, such as:
 - Yoga, Pilates or
 Hip hop dance
 - Silly movement songs/ dancing for younger children
- ➤ Keep exercise equipment like free weights (or try using 2 soup cans) or exercise balls in an area you can see them. You can use them during T.V. commercials or when you take built in breaks
- Adapt outdoor games to inside (e.g. games with balloons or soft balls)



- > Biking
- **>** Swimming
- **>** Rock climbing
- > In line skating
- Xayaking
- > Walking or hiking
- Scootering
- > Street hockey
- > Skiing





- > Playing tag
- **>** Hopscotch
- Mini golf
- > Snow shoeing
- > Tobogganing/tubing
- > Skipping rope
- > Running through the sprinkler

Work activity into your day:

- **>** Ride your bike, walk, or scooter to school, the park, etc.
- Help carrying groceries or taking out the garbage/ recycling
- Rake the lawn, help with gardening and planting, shovel snow
- **>** Take the dog for a walk or run
- **>** Take the stairs instead of the elevator
- > Try to work 10,000 steps into your day (can use a pedometer to track steps)
- **)** Get off the bus a stop early and walk the rest of the way

Rainy day activities:

Be prepared for the rain; have rain gear ready and you can still do a lot, even if you are getting wet. But if you really can't be outside:



- **>** Bowling
- > Ice skating or indoor climbing
- Open gyms at community centre
- **>** Put on music and dance around your living room
- > Try a drop in dance or yoga class

Other activities:

- Take part in a charity walk/ run and train for it as a family (many community centres offer training programs)
- **>** Attend community events
- ➤ Have a friendly competition with your kids (e.g. jumping rope)
- Use parties as a way to promote activities (like skating or bowling)



Canadian Physical Activity Guidelines

FOR CHILDREN - 5 - 11 YEARS

Guidelines



For health benefits, children aged 5-11 years should accumulate at least 60 minutes of moderate- to vigorous-intensity physical activity daily. This should include:



Vigorous-intensity activities at least 3 days per week.



Activities that strengthen muscle and bone at least 3 days per week.



More daily physical activity provides greater health benefits.

Let's Talk Intensity!

Moderate-intensity physical activities will cause children to sweat a little and to breathe harder. Activities like:

- Bike riding
- Playground activities

Vigorous-intensity physical activities will cause children to sweat and be 'out of breath'. Activities like:

- Running
- Swimming

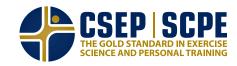
Being active for at least **60 minutes** daily can help children:

- Improve their health
- Do better in school
- Improve their fitness
- Grow stronger
- Have fun playing with friends
- Feel happier
- Maintain a healthy body weight
- Improve their self-confidence
- Learn new skills

Parents and caregivers can help to plan their child's daily activity. Kids can:

- \square Play tag or freeze-tag!
- ☑ Go to the playground after school.
- ☑ Walk, bike, rollerblade or skateboard to school.
- ✓ Play an active game at recess.
- ☑ Go sledding in the park on the weekend.
- ☑ Go "puddle hopping" on a rainy day.

60 minutes a day. You can help your child get there!



Canadian Sedentary Behaviour Guidelines

FOR CHILDREN - 5 - 11 YEARS

Guidelines

For health benefits, children aged 5–11 years should minimize the time they spend being sedentary each day. This may be achieved by



Limiting recreational screen time to no more than 2 hours per day; lower levels are associated with additional health benefits.



Limiting sedentary (motorized) transport, extended sitting and time spent indoors throughout the day.

The lowdown on the slowdown: what counts as being sedentary?

Sedentary behaviour is time when children are doing very little physical movement. Some examples are:

- Sitting for long periods
- Using motorized transportation (such as a bus or a car)
- Watching television
- Playing passive video games
- Playing on the computer

Spending less time being sedentary can help children:

- Maintain a healthy body weight
- Do better in school
- Improve their self-confidence
- Have more fun with their friends
- Improve their fitness
- Have more time to learn new skills

Cutting down on sitting down. Help children swap sedentary time with active time!



There is no time like right now for children to get up and get moving!



Canadian Physical Activity Guidelines

FOR YOUTH - 12 - 17 YEARS

Guidelines



For health benefits, youth aged 12-17 years should accumulate at least 60 minutes of moderate- to vigorous-intensity physical activity daily. This should include:



Vigorous-intensity activities at least 3 days per week.



Activities that strengthen muscle and bone at least 3 days per week.



More daily physical activity provides greater health benefits.

Let's Talk Intensity!

Moderate-intensity physical activities will cause teens to sweat a little and to breathe harder. Activities like:

- Skating
- Bike riding

Vigorous-intensity physical activities will cause teens to sweat and be 'out of breath'. Activities like:

- Running
- Rollerblading

Being active for at least **60 minutes** daily can help teens:

- Improve their health
- Do better in school
- Improve their fitness
- Grow stronger
- Have fun playing with friends
- Feel happier
- Maintain a healthy body weight
- Improve their self-confidence
- Learn new skills

Parents and caregivers can help to plan their teen's daily activity. Teens can:

- ☑ Walk, bike, rollerblade or skateboard to school.
- ☑ Go to a gym on the weekend.
- ☑ Do a fitness class after school.

- ☑ Get the neighbours together for a game of pick-up basketball, or hockey after dinner.
- ☑ Play a sport such as basketball, hockey, soccer, martial arts, swimming, tennis, golf, skiing, snowboarding...

Now is the time. 60 minutes a day can make a difference.



Canadian Sedentary Behaviour Guidelines

FOR YOUTH - 12 - 17 YEARS

Guidelines

For health benefits, youth aged 12–17 years should minimize the time they spend being sedentary each day. This may be achieved by



Limiting recreational screen time to no more than 2 hours per day; lower levels are associated with additional health benefits.



Limiting sedentary (motorized) transport, extended sitting and time spent indoors throughout the day.

The lowdown on the slowdown: what counts as being sedentary?

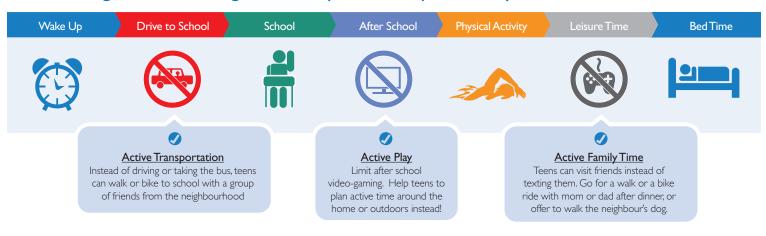
Sedentary behaviour is time when teens are doing very little physical movement. Some examples are:

- Sitting for long periods
- Using motorized transportation (such as a bus or a car)
- Watching television
- Playing passive video games
- Playing on the computer

Spending less time being sedentary can help teens:

- Maintain a healthy body weight
- Improve their self-confidence
- Do better in school
- Improve their fitness
- Have more fun with their friends
- Have more time to learn new skills

Cutting down on sitting down. Help teens swap sedentary time with active time!



Now is the time for teens to get up and get moving!



MODULE 04

Stress Management

MODULE 04 Stress Management

This module is comprised of the following sections:

SECTION 1: Key Messages

SECTION 2: Discussing Stress with Children and Youth

SECTION 3: Stress Management Strategies

SECTION 4: Resources and Handouts

When discussing stress with children and youth, it's important to remember that experiencing some stress is normal and necessary, and should not be pathologized or feared. This positive stress (or eustress) is healthy and gives one a feeling of fulfillment. It can motivate, increase performance, and provide opportunities for learning. For children and youth, examples include giving a presentation in school or pushing themselves to master a new skill.

Children and youth, like adults, will inevitably experience daily hassles or concerns (e.g. having too much to do with too little time, negotiating with parents) and unexpected demanding situations or events (e.g. divorce). Children and youth can respond to these situations in a positive or healthy way by employing appropriate stress management or coping strategies, or in a negative way by not employing (or employing unhealthy or risky) stress management or coping strategies. While the demanding situation or event may not be in the child's control, their *response* to the situation can be adjusted so that challenges are confronted in a healthy way.

Healthy coping and stress management can reduce the negative impact of stress, which can affect both the physical and mental health of children and youth. For instance, negative stress can lead to headaches, abdominal pain, nervousness and sleeping difficulties as well as increased risk-taking behaviour, anxiety or depression. Chronic stress can contribute to lower immunity, can aggravate autoimmune disorders and may play a role in the development of cardiovascular disease and metabolic disorders including obesity, insulin resistance, and Type 2 diabetes mellitus. Health care professionals can play an important role in identifying and helping children and youth cope with stress. This module provides you with information to promote healthy coping and stress management for children and youth with mental health challenges.



Healthy coping and stress management can reduce the negative impact of stress, which can affect both the physical and mental health of children and youth

Key Messages

Here are some key messages to keep in mind when discussing stress with children, youth and their families:

1. WHAT YOU DO AND HOW YOU THINK CHANGES THE WAY STRESS AFFECTS YOU

Let children and adolescents know that stressful events happen to everyone, and what is important is how they react to these stressful situations – if they react with effective coping and stress management strategies, they will be able to manage the demanding situation in a healthy way.

2. STRESS CAN AFFECT HOW YOU FEEL, THINK, AND ACT

All young people will experience stress differently, and their reactions can vary depending on their age. Being able to recognize how they react to stress is important to help build prevention skills so that the next time a stressor occurs, they can use an effective coping strategy *before* they experience a negative stress reaction. Some ways to help children and youth recognize their reactions to stress can be found in Section 2.

3. STRESS MANAGEMENT IS NOT 'ONE SIZE FITS ALL'

Different strategies will work for different children and youth in different situations. Strategies discussed in Section 3 include appraisal-focused strategies (modifying the way one thinks), problem-focused strategies (dealing with the cause of the problem) and emotion-focused strategies (such as employing relaxation techniques). It's important to find a strategy that works for the individual child, and is appropriate for the type of stressor they are reacting to.

4. IS IT STRESS OR SOMETHING MORE SERIOUS? WHEN TO REFER

All children and youth will experience some stress in their lives. However, the symptoms of stress may be similar to the symptoms of a more serious mental health concern, and may require a referral to an appropriate health professional. Information to help you make this distinction can be found in Section 2.



All young people will experience stress differently, and their reactions can be quite different depending on their age



SECTION 02

Discussing Stress with Children and Youth

In this section, key considerations to keep in mind when discussing stress with children and youth are offered. These include tips for bringing up stress, helping a young person identify their reactions to stress, and making the distinction between stress and mental health or substance use concerns.

Bringing it up



Many children and youth may not understand what the word 'stress' means. In order to help them understand what stress is, here are some different ways you could describe it:

- Instead of using the word 'stress', you could try using other related words such as 'worry'
- Earl Hipp, in his book *Fighting Invisible Tigers: Stress Management for Teens* (2008)⁵, suggests that stress could be described as "the feeling you have when facing many challenges all at the same time", and that it may be helpful to get youth to imagine all of their worries and problems as separate rubber bands around their heads, and the pressure they feel from the rubber bands as stress
- Kenneth Ginsburg, in his book *A Parent's Guide to Building Resilience in Children and Teens* (2006)²⁹ suggests describing stress as "the uncomfortable feeling you get when you're worried, scared, angry, frustrated, or overwhelmed. It is caused by emotions, but it effects your mood and body." He also suggests relaying to teens that "many adults think that teenagers don't have stress because they don't have to work and support a family. They are wrong!" This approach to describing stress can help to normalize and validate the youth's stress
- Some children and youth with mental health challenges have difficulty understanding emotions, including emotional reactions to stress.⁴ A resource to help children/youth recognize emotions can be found here: http://www.drcheng.ca/resources/Articles/mood_scales-facesforallages.pdf.

When bringing up stress with young people, start by asking the child or youth if anything is worrying them or stressing them out. If the child or youth can't describe or pinpoint anything, try providing some prompts – for example,

you could ask if anything is bothering them at school, at home, or in their relationships. You might also want to start by asking the "three wishes" question: "If you had three wishes and could change any three things in yourself, your life, or your world – what would they be?"

Discussing Reactions to Stress

The first step in discussing stress with children and youth is helping the young person to recognize their reactions to stress. Discussing current stress helps the young person build prevention skills so that next time, they can use an effective coping strategy *before* they experience a negative stress reaction.

Explain to children and youth that stress can affect how they *feel* (mentally and physically), how they *think*, and how they *act* – questions to help young people recognize their reactions to stress can be found on the left hand side of this page. Some health professionals find it helpful to discuss the biological and evolutionary underpinnings of stress (the 'fight or flight response'), as this can lead to a more intuitive understanding of how stress affects the mind (mood, emotions, thinking) and the body (cardiovascular, respiratory, immune, etc.). It can also help the child or youth start to identify their own responses to stress. Some ways to describe this to children and youth can be found on the KidsHealth website (kidshealth.org), in the book *Fighting Invisible Tigers* by Earl Hipp, or in the book *A Parent's Guide to Building Resilience in Children and Teens: Giving Your Child Roots and Wings* by Dr. Kenneth Ginsburg (details on how to access these books can be found in the resource section, under 'Books').

Some ways in which children and youth may react in a negative way to stress include:⁷

- Acting out
- Eating or sleeping difficulties (such as nightmares)
- Irritability or crying a lot
- Withdrawing from others
- Losing interest in school or friends
- Physical signs like headaches and stomachaches
- Going back to behaviours they outgrew, like wetting the bed



QUESTIONS TO HELP YOUNG PEOPLE RECOGNIZE THEIR REACTIONS TO STRESS:

- How does it feel when you're stressed?
- How would you know when you're stressed?
- What sort of thoughts do you have?
- How does it affect your behaviour?
- How do you act towards others at these times?
- How do other people behave towards you?
- How would you recognize stress in others?⁶



Pre-teens and teens may also show stress by:

- Going against rules or expectations
- Showing a lot of anger or distrust
- Exhibiting poor self-esteem, like putting themselves down or assuming that others won't like them
- Engaging in risky behaviours such as using drugs or alcohol, engaging in unsafe sex, skipping school, or getting into fights

Discussing Skills and Resources



KEY SUPPORTIVE FACTORS INCLUDE:

- Family
- Peer Supports
- Caring Adult Support
- Spiritual/Religious Support
- Hobbies
- Creative Outlets
- Connection to School

It's important at this stage to explore what effective and healthy coping skills the child or adolescent already uses, who their supports are, and what they can identify as their strengths and resources. Try asking them:

- When you're stressed out, what do you do to help yourself feel better?
- Who can you talk to about it?

For more information on helping children and youth identify and build on their strengths and assets, see Section 3 (under 'Focusing on Strengths and Resources').

Once both current reactions to stress and current coping skills/resources have been explored, move to building on the child or youth's current strengths, and suggesting stress management strategies they could try to prevent negative stress reactions from occurring in the future (see Section 3 for a review of strategies).

When to Refer

MAKING THE DISTINCTION BETWEEN STRESS AND MENTAL HEALTH OR SUBSTANCE USE CONCERNS

All children and youth will experience some stress in their lives. However, the distinction must be made between stress and more serious mental health or substance use concerns, such as anxiety or depression. If you suspect that the reactions above may actually be a sign of a mental health condition, refer to an appropriate health professional. The Kelty Mental Health Resource Centre (keltymentalhealth.ca) can provide you with information on how to make this distinction, and if necessary provide referral options. Additionally, some major stressors are beyond the ability of children and adolescents to cope without



While some signs of stress are also common signs of an anxiety disorder, stress and anxiety disorders are not the same thing professional help, and should be referred to an appropriate professional immediately (e.g. sexual abuse, witnessing violence).

One mental health condition that has many overlapping symptoms with stress is anxiety – while some signs of stress are also common signs of an anxiety disorder, stress and anxiety disorders are not the same thing. With stress, signs go away as stress lessens. With an anxiety disorder, the signs continue to affect a child's life long after a stressful situation or event is over. If you suspect that the child or youth you are seeing may have an anxiety disorder, visit Anxiety BC for more information on signs, symptoms, and treatment options: www.anxietybc.com.

Teenagers sometimes use substances, such as alcohol, tobacco, cannabis, caffeine, or other drugs to cope with stressors in their lives.³ Excessive or inappropriate use of alcohol or other drugs can interfere with daily life and negatively affect school, relationships, and physical and mental health.¹¹ If you suspect the child or youth you are seeing is using substances in an excessive or inappropriate way, resources and referral information can be found on the Kelty Mental Health Resource Centre website (keltymentalhealth.ca), the Youth in BC website (www.youthinbc.com/learn-more/drugs-alcohol-addictions), or the Alcohol and Drug Information and Referral Service website (http://bc211.ca/adirs2.html).

SECTION 03

Stress Management Strategies

This section details key stress management strategies that health professionals working with children and youth with mental health challenges may find helpful. Additional strategies suggested by families can be found in the *Guide to Healthy Living for Families*, available from: keltymentalhealth.ca/toolkits

When discussing stress management strategies, work with the child or youth to choose a strategy and help them to develop a small, achievable goal (a SMART goal) using the resources provided in Module 1.



Relaxation Techniques



You could try explaining relaxation to young people as "finding your calm centre", and as a way to relieve tense muscles and relax your brain⁵

Relaxation techniques have been shown to have immediate relaxation effects on children and youth, both physiologically as well as subjectively. 12,13,14 Relaxation techniques are found to be especially effective for situations that are not under the personal control of the child. In addition, relaxation techniques may be particularly beneficial for children who worry a lot, who can't settle down, who are distractible or hyperactive, who have difficulty falling asleep, or who have depression or anxiety. 4,14,15

Some techniques that have been found to be effective with children are detailed below. When choosing a technique, keep in mind the child's personal preferences and developmental stage. Resources (text, audio and video) of some of the relaxation strategies described below can be found in the resource section.

DEEP BREATHING

Deep breathing ('belly breathing') is one of the easiest and quickest ways to relax, as it can be done anywhere and at anytime. It allows young people to visit their 'calm centre' whenever they start to feel overwhelmed by stress.⁵ In order to help children and youth understand deep breathing, you can:

- Describe the difference between how we breathe when we are stressed (fast and shallow) and how we can breathe when we are relaxed (slow and deep)
- Fast/shallow breathing is breathing that comes from your chest, while deep/ slow breathing comes from your stomach/belly

BELLY BREATHING FOR CHILDREN:



- Inhale slowly for 4 seconds through the nose
- Ask the child to pretend that he or she is blowing up a balloon in the belly, so the child's belly should inflate when inhaling
- Wait 2 seconds, and then slowly exhale through the mouth.
 Ask the child to pretend that he or she is emptying the balloon of air, so the tummy should deflate
- Wait 2 seconds, and then repeat

When belly breathing, make sure the child's upper body (shoulders and chest area) is fairly relaxed and still.¹⁷

PROGRESSIVE MUSCLE RELAXATION

Progressive muscle relaxation (PMR) is a method of systematically tensing and relaxing muscle groups throughout the body. This technique can be done during the day or in the evening to relax or aid sleep. PMR has been found to benefit children experiencing stress^{2,15} and has been used as one of several techniques to treat a variety of childhood difficulties, including anxiety disorders, sleep disturbance, hyperactivity and impulsivity.¹⁶

It is important to ensure that the technique used is developmentally appropriate. For some children, having an adult guide them through the process may be helpful. Additionally, metaphorical PMR scripts (e.g. pretend you are a turtle going into it's shell) are preferred by some young children to literal PMR scripts (e.g. squeeze your shoulders to your ears). A simple PMR script can be found on the *Quick Ways to Relax* handout, found at the back of this module.

MASSAGE THERAPY

Massage therapy may help to reduce stress levels in children and youth with certain mental health conditions. Massage therapy has been shown to be effective in reducing stress levels in child and adolescent psychiatric patients¹⁴,



reducing sleep problems and difficult behaviour in children with autism^{18,19}, and increasing feelings of happiness in adolescents with ADHD.²⁰ If you feel massage therapy may be beneficial for a child or youth you are seeing, refer to a registered massage therapist who has experience with this population.

VISUALIZATION

Visualization (or mental imagery) is a potent method of stress management, especially when combined with physical relaxation methods such as deep breathing.²¹ There are different ways of practicing visualization – some may be more effective for general feelings of stress, while others may be more effective for specific worries.

GENERAL VISUALIZATION

Children or youth can be instructed to close their eyes and picture themselves in a calm, peaceful environment. They can then describe to themselves what it looks, sounds, smells and feels like. They can return here when they feel stressed or worried. It may also be helpful for them to find a quiet place in their home or school where they can go to practice visualization. A simple visualization exercise can be found at the back of this module (on the *Quick Ways to Relax* handout).

SPECIFIC VISUALIZATION - THE WORRY BOX

The worry box is a place to 'trap' worries so they're not running wild in the child's mind, and the child/youth knows where they are. Creating a worry box involves the child/youth creating a picture in their mind of a place to put their worries for safe keeping, like a drawer, jar or locker. Worries can be put into the worry box and locked up – the box can be opened at a later time to take out a few worries and think about ways to solve them.²²

Additional visualization techniques for children can be found in the book *Taming Worry Dragons: A Manual for Children, Parents, and other Coaches (4th Ed.).* See the resource section under 'Books' for details on how families can order this book, free of charge, to anywhere in B.C.

Healthy Lifestyle & Environment





Playing with pets has been found to be particularly beneficial at reducing stress levels and increasing emotional well-being²⁵

MAINTAINING A HEALTHY LIFESTYLE

Being physically active, as well as eating and sleeping well, are some of the best stress-management strategies. Maintaining a healthy lifestyle can help keep the immune system strong and energy levels high, and can help to reduce muscle tension and mental fatigue that accompany stress.^{3,5,6} For more information on healthy eating, physical activity or sleep please refer to the other modules within this toolkit.

CONTACT WITH NATURE

Contact with nature can reduce feelings of stress and increase well-being.^{23,24} Try encouraging children and their families to spend time outdoors, and if possible in or near nature. A handout for families at the back of Module 3 provides some ideas for being active outdoors. In addition to actually being in nature (e.g. parks, wilderness, areas with trees or water), studies show that viewing images of nature also helps to relieve stress and improve well-being.²⁶

SOCIAL SUPPORT

A healthy social environment, most importantly social support, has been found to be one of the most important factors in lowering feelings of stress.⁸ For teens, this social support – especially from peers – is particularly important. This seems to be especially true for teenage girls, as they are most likely to go to their friends for support when they are feelings stressed.^{1,3,6} A website developed specifically for teenage girls dealing with stress is: www.howtochill.ca

Ask young people to think about those who can give them support when they need it, and encourage them to talk to trusted friends and family members or other trusted adults about their worries.

Healthy Thinking

Learning to think in a healthy way is a powerful stress management tool. It allows children and adolescents to control the way situations affect them and how (or if) other people affect them.



COMMON THINKING TRAPS

- Overgeneralizing (using words like 'never' or 'always')
- Black and white thinking
- Jumping to unfounded conclusions
- Taking things personally
- Exaggerating the consequences of a situation
- Predicting something bad will happen, without any evidence
- Focusing on the negative in a situation and ignoring the good
- Telling yourself how you "should" act ¹¹



AVOIDING THINKING TRAPS

Talking to young people about the link between their feelings and thoughts can show them how managing difficult thoughts can help to minimize feelings of stress: while external circumstances can't always be changed, their reaction to these situations can. Research has shown that people who reinterpret a stressful situation in a more balanced way have a less intense response to the stressor.⁶

One of the most common thinking traps is engaging in negative self-talk. Encourage children and youth to think about what their negative self-talk is, and how they can re-frame it. The new script might include things such as: ²²

- "I can handle it"
- "I will try my best and not worry about it"
- "Just because ____ is nasty to me doesn't mean everybody dislikes me"

Changing their method of self-talk may take some practice, and writing down both their negative and positive (or 'red' and 'green') thoughts can be helpful. Resources for managing self-talk can be found in the resource section (under 'Anxiety BC' and 'Here to Help') as well as in the *Guide to Healthy Living for Families*.

FOCUSING ON STRENGTHS AND RESOURCES

Stress can be seen as a badly tipped scale, with more demands on one side than personal coping resources to deal with them. Stress management can look at decreasing the demands, but it can also look at boosting the personal resources to cope. 8,9,10 When discussing stress with children or youth, it is important to help them identify their internal and external resources for coping with stress. For instance, internal resources could include believing they can handle stress, or having high self-esteem or a sense of humor. External resources could include support from friends, family or teachers.

Try asking children or youth to think about a time when they did something well or accomplished a task to get them thinking about their strengths and resources. You could also encourage them to think about and write down the positive things in their lives, such as people, things or talents – this simple technique has been shown to be effective at helping youth to not dwell on the negatives.⁵ Another technique is getting the child or youth to keep a gratitude journal, in which they write down what they are grateful for each day. This can be done individually by the child, or as a family.



Mindful behaviour involves an individual being fully in contact with what is taking place in the present moment

MINDFULNESS

Mindfulness is the practice of "paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally".³⁴ Thus, if a child/youth was walking to school 'mindfully', they would practice maintaining a continuous awareness of their breathing, pay attention to the feeling of their bag on their shoulder, and perhaps the mild tension associated with approaching the school.³¹

A growing body of research suggests that mindfulness-based psychosocial interventions are effective for a wide range of mental health and physical health disorders in adult populations.³² For example, research in adults has shown that mindfulness-based stress reduction (MBSR), an evidence-based group training program for managing stress, can significantly reduce anxiety and panic symptoms, depressive relapse, and psychological distress in both clinical and healthy, stressed populations.³²

Preliminary research on mindfulness-based interventions with children and adolescents is emerging, with promising results. ^{30,31,32,36} For example, in a number of recent pilot studies, child and youth participants in MBSR training reported increased relaxation, improved sleep and concentration, greater self-awareness, and less emotional and behavioural reactivity. ^{32,33,36} Mindfulness-based interventions with children and adolescents in school- and community-based settings have also shown promise. ^{30,31}

If you feel that a mindfulness-based intervention may be useful to the child or youth you see in your practice, you may want to explore opportunities in your community. Additional information on mindfulness can be found in the resource section of this module.

Behavioural Strategies

TIME MANAGEMENT

Stress can be caused by not having enough time to get everything done. For children and youth with some mental health conditions, managing time can be especially challenging – for instance, children with ADHD may have difficulty organizing tasks or activities, and can be easily distracted.^{27,35}



SETTING PRIORITIES: THE ABC METHOD

- Write out all of the things that need to get done in the near future
- Mark the very important ones as 'A', pretty important ones as 'B', and things that would be nice to do but not essential as 'C'
- Order these by letter
- Within each letter prioritize again by number
 (i.e. A-1, A-2, A-3, etc.)⁵



FIVE STEPS TO PROBLEM SOLVING

- Step 1: Choose the problem
- Step 2: Understand the problem
- Step 3: Come up with different solutions
- Step 4: Compare the solutions
- Step 5: Find the best solution and put it into action²⁸

Some top time management tips include:

- Writing out a weekly schedule and looking for ways to make it more balanced
- Practicing the 'ABC Method' of time management (see text on the left hand side of this page)
- Practicing saying no to tasks that are unimportant or that there simply isn't enough time for
- Getting enough sleep this ensures you have enough energy to get all necessary tasks done (see Module 5 for more information on getting a good night's sleep)

Links to child- and youth-focused websites that discuss time-management skills can be found in the resource section.

PROBLEM SOLVING

Problem solving is a skill that can be applied to many situations. It can help to decrease stress once it has occurred, and can help to prevent stress from occurring in the first place. While the steps for solving problems are fairly straightforward, many children and youth have not learned these steps.⁶ Five simple steps to problem solving can be found on the left hand side of this page.

Some questions that can be asked to help the child/youth understand the problem include: ²⁸

- Have you had this problem before? How did you handle it?
- Is there anything more you need to know about this problem before you can solve it?
- Are there people who can help support you in solving this problem?

An important component of problem solving is knowing the difference between problems that can be solved and problems that can't. For problems that can't be solved, coping techniques such as healthy thinking or relaxation may be more beneficial. A problem solving worksheet for younger children can be found as a handout at the back of this module and resources for youth can be found in the resource section (under 'MindCheck' and 'Here to Help').

SECTION 04

Resources and Handouts



In this section, you will find resources that may be helpful to both yourself as well as to the families you see in your daily practice. At the end of this section, you will find some tools and handouts. Some of these tools will be useful for you to use with the children and youth you see (e.g. assessment tools), while others can be given to children, youth or parents/caregivers as a handout.

Online Resources

GENERAL STRESS		
Organization	Details	Web Address
Adolescent Health Working Group	 Adolescent provider toolkits; stress management section in the Behavioral Health toolkit 	www.ahwg.net/knowledgebase/nodates.php?pid=79&tpid=2
Anxiety BC	Resource on stress management and anxiety specifically for youth and young adults	http://youth.anxietybc.com/
Child & Youth Health	 Information on stress written for younger 	www.cyh.com
	children, including relaxation exercises	(type in 'kids and stress' in the search bar)
Kelty Mental Health Resource Centre	 Information on stress management, including a healthy thinking interactive activity, for children, youth and families 	http://keltymentalhealth.ca/ healthy-living/stress
KidsHealth	 Web page for parents with info on recognizing signs of stress in children and helping them cope 	kidshealth.org/parent/emotions/ feelings/stress.html
	 Information for teens on recognizing and dealing with stress; includes an audio breathing exercise 	kidshealth.org/teen/your_mind/ emotions/stress.html#
Here to Help	 Handouts on stress, problem solving, healthy thinking and more 	www.heretohelp.bc.ca
mindcheck.ca	 Stress management resources for young people, as well as mental health screening tools 	http://mindcheck.ca/mood-stress

RECOGNIZING EMOTIONS			
Organization	Details	Web Address	
DrCheng.ca (CHEO)	• Free, downloadable booklet to help children express feelings (Mood Scales: Faces for all Ages)	http://www.drcheng.ca/ resources/Articles/mood_scales- facesforallages.pdf	
RELAXATION			
Organization	Details	Web Address	
Fighting Invisible Tigers	 Includes free audio excerpts from the book, including breathing and PMR 	www.freespirit.com/stress- mangement-fighting-invisible- tigers-stress-management-for- teens-earl-hipp/	
YouthInBC	• Visual, audio and text stress reduction tools (includes yoga videos, mindfulness, and PMR)	youthinbc.com/learn-more/stress/ stress-management-exercises	
MindMasters (Child and Youth Health Network for Eastern Ontario)	 A research-based program that teaches simple techniques like deep breathing, PMR and imagery Audio tapes accompany many of the activities 	http://www.child-youth-health. net/english/publications-and- resources/mindmasters/	
Psychology Foundation of Canada (Kids Have Stress Too Program)	Videos on how young children deal with stress and stress reduction activities	http://psychologyfoundation.org/ index.php/programs/kids-have- stress-too/	
University of Massachusetts Center for Mindfulness	 Research, and a listing of mindfulness-based stress reduction programs worldwide, including some in B.C. 	www.umassmed.edu/cfm/home/index.aspx	
TIME MANAGEMENT			
Organization	Details	Web Address	
It's my life	Time management tips for kids	pbskids.org/itsmylife/school/time/index.html	
ADDitude	Time management tips for children with ADHD	www.additudemag.com/adhd/ article/5992.html	

Books

FOR CHILDREN

Garland, JE, & Clark, SL (2009). Taming Worry Dragons: A Manual for Children, Parents, and other Coaches (4th Edition). Vancouver, BC: BC Children's Hospital

NOTE: This book can be borrowed or purchased from the BCCH Family Resource Library, and mailed free of charge to any location in B.C. To do this, go to the Family Resource Library website, and search for this title in the Online Catalogue: http://www.bcchildrens.ca/KidsTeensFam/FamilyResourceLibrary/LibraryCatalogue.htm. Alternatively, call toll free 1-800-331-1533 ext. 2

FOR TEENS

Hipp, E (2008). Fighting Invisible Tigers: Stress Management For Teens. Minneapolis, MN: Free Spirit Publishing

NOTE: This book can be borrowed from public libraries across B.C. (ISBN: 1575422824)

Biegel, G (2009). The Stress Reduction Workbook for Teens: Mindfulness Skills to Help You Deal With Stress. Oakland, CA: Instant Help Books (A Division of New Harbinger Publications, Inc.)

FOR PARENTS

Ginsburg, K (2011). Building Resilience in Children and Teens: Giving Kids Roots and Wings (2nd Edition). Elk Grove Village, IL: American Academy of Pediatrics

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Quick Ways To Relax



Breathe Deeply

Breathing Exercise

- 1. Slowly blow up the balloon 1 2 3 4
- 2. Now, slowly blow out the balloon 1 2 3 4

You can help slow down your body and quiet your mind by breathing deeply. Here is one way to try deep breathing:

- Imagine you have a balloon in your tummy. Place one hand below your belly button
- Breathe in slowly through the nose for four seconds
- Feel the balloon fill up with air your belly should expand
- When the balloon is full, slowly breathe out through your mouth for about four seconds
- Your hand will rise and fall as the balloon fills and empties
- Wait 2 seconds, and then repeat a few times
- When belly breathing, make sure the upper body (shoulders and chest area) is fairly relaxed and still

Adapted from AnxietyBC



Visualize A Calm Place

- Find a quiet place and close your eyes
- Think of the most calm, peaceful place you have ever been. Picture yourself in that place
- Describe what it: Looks like, Sounds like,
 Smells like, Feels like
- Return here when you are feeling stressed or worried



Relax Your Muscles

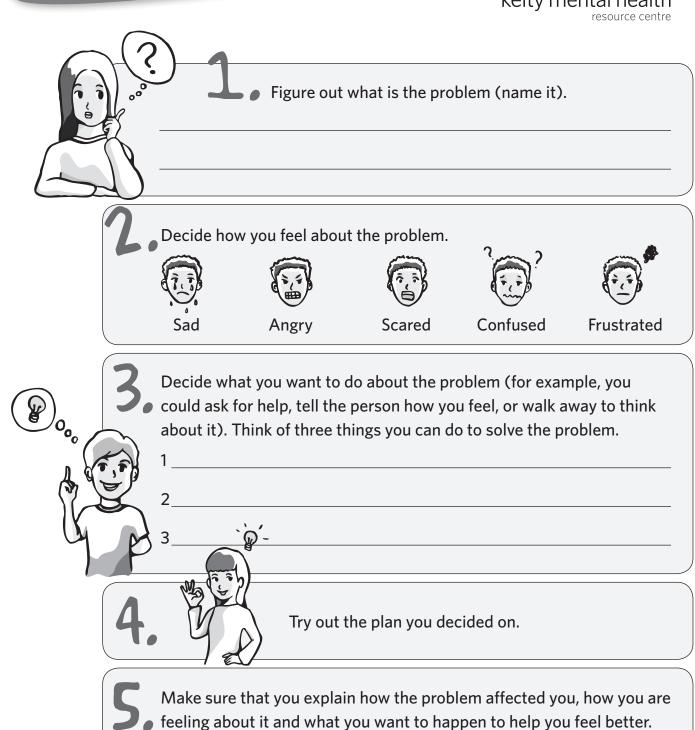


- Make a fist with each hand, squeeze each hand tight. Squeeze... Squeeze... Squeeze... Squeeze...
- Now, while you squeeze your fists again, tighten your arms to squeeze your body, Squeeze... Squeeze... Squeeze... Relax
- Now, this time also squeeze your legs together while making a fist and squeezing your arms together, Squeeze... Squeeze... Squeeze... Relax
- Repeat if you would like
- Shake out your hands, arms and legs. Hopefully now you feel more relaxed

Adapted from the Psychology Foundation of Canada

How to Problem Solve





If the plan you chose does not work, DO NOT give up, ASK FOR HELP!

Stress Busters

Use one or more of these activities the next time you want to relax or when you feel stressed out. Each activity only takes 10 to 30 minutes.

Exercise (%)



Exercise for 30 minutes 3 to 5 times a week. You can walk, run, swim, dance, bike, play sports, or any other activity that gets your body moving. Exercise is a great way to release extra energy and keep fit.

Eat Healthy "O



Eat healthy foods such as whole grain breads, fruits, vegetables and drink lots of water. Be aware of how much you eat when stressed out. Try not to eat too little or too much. Eat breakfast every day. If you can, pack a healthy lunch and snack such as a sandwich made with wheat bread and a piece of fruit. Avoid junk food, soda, juices with added sugar, caffeine, nicotine, alcohol, and drugs.

Breathe Peeply 📆 🛸



- 1. Find a quiet and comfortable place to sit or lay down.
- 2. Close your eyes or look at a spot on the wall.
- 3. Clear your mind of thoughts or focus on a word like "breathe" or "relax."
- 4. Breathe in slowly through your nose until your chest is fully expanded. Breathe out slowly through your mouth until the air in your chest is pushed out. Try not to think about anything else except your breathing.
- 5. Repeat this deep breathing 10 to 20 times until you feel relaxed. (Don't be surprised if you fall asleep).

Imagine Relaxation



- 1. Find a quiet place and get comfortable.
- 2. Close your eyes and imagine a place where you feel safe and relaxed. Think about how you feel and what you hear, see, and smell in this place. Or imagine the stress slowly flowing out of your body.
- 3. Stay with these feelings, thoughts, and sensations. Breathe quietly until you are ready to get up.

Express yourself @



Write in a journal. Or create art, play music, write stories or poetry, cook, laugh, or volunteer. Talk to someone you trust about how you feel.

Relax your muscles



- 1. Find a quiet place where you can lay down and get comfortable.
- 2. Close your eyes. Relax your entire body. Imagine that your muscles are limp.
- 3. Flex the muscles in your feet while you keep the rest of your body relaxed. Hold for five seconds and do not release. Then continue to flex other muscle groups one at a time: calves, thighs, stomach, chest, arms, hands, and face until your entire body is tense. Remember to keep parts of your body relaxed until it is time to flex them.
- 4. Hold your entire body tense for five seconds then release all the tension.
- 5. Relax, breath slowly and deeply, and imagine your body melting.
- 6. Get up slowly when you're ready.

Get in Touch with your senses

Listen to music you enjoy. Take a shower or bath. Go outside for a walk or run. Focus on what you see, hear, and feel.

Resources:

- Emotional Health. Go Ask Alice!: www.goaskalice.columbia.edu/Cat4.html
- Mind Your Mind: www.mindyourmind.ca

Do you have any comments or questions about this handout? Please contact Adolescent Health Working Group by emailing feedback@ahwg.net or calling (415) 554-8429. Thank you.



Stress Management Resources for Children, Youth and Families





Online Resources

ORGANIZATION	DETAILS	WEB ADDRESS
General Stress		
Anxiety BC	Stress management and relaxation resources for youth and young adults	http://youth.anxietybc.com/
Child & Youth Health	 Information on stress written for younger children, including relaxation exercises 	www.cyh.com (type in 'kids and stress' in the search bar)
Kelty Mental Health Resource Centre	 Information on stress and stress management for children, youth and families 	http://keltymentalhealth.ca/healthy-living/stress
KidsHealth	Web page for parents with info on recognizing signs of stress in children and helping them cope	www.kidshealth.org/parent/emotions/feelings/stress.html
	Information for teens on recognizing and dealing with stress; includes audio breathing exercise	www.kidshealth.org/teen/your_mind/emotions/stress.html
mindcheck.ca	Stress management resources for young people, as well as mental health screening tools	http://mindcheck.ca/mood-stress
Relaxation		
Fighting Invisible Tigers	 Includes free audio excerpts from the book, including breathing and Progressive Muscle Relaxation (PMR) 	www.freespirit.com/catalog/item_detail.cfm?ITEM_ID=219
YouthInBC	 Visual, audio and text stress reduction tools (includes yoga videos, mindfulness, and PMR) 	www.youthinbc.com/learn-more/stress/stress- management-exercises/
MindMasters	 A research-based program that teaches simple techniques like deep breathing, PMR, and imagery Audio tapes accompany many of the activities 	www.child-youth-health.net/en/child-youth-health/ mind_masters_p280.html
Time Management		
ADDitude	Time management tips for children with ADD/ADHD	www.additudemag.com/adhd/article/5992.html
It's My Life	Time management tips for kids	www.pbskids.org/itsmylife/school/time/index.html

Books



FOR CHILDREN

Garland, JE, & Clark, SL (2009). Taming Worry Dragons: A Manual for Children, Parents, and other Coaches (4th Ed.). Vancouver, BC: BC Children's Hospital

NOTE: This book can be borrowed/purchased from the BCCH Family Resource Library: http://www.bcchildrens.ca/KidsTeensFam/FamilyResourceLibrary/LibraryCatalogue.htm

FOR TEENS

Hipp, E (2008). Fighting Invisible Tigers: Stress Management For Teens. Minneapolis, MN: Free Spirit Publishing

NOTE: This book can be borrowed from the Vancouver Public Library (ISBN: 1575422824)

MODULE 05
Sleep

MODULE 05 Sleep

This module is comprised of the following sections:

SECTION 1: Key Messages

SECTION 2: Discussing Sleep with Children and Youth

SECTION 3: Addressing Factors that Impact Sleep

SECTION 4: Medications and Pediatric Sleep Difficulties

SECTION 5: Resources and Handouts



For children and youth with mental health concerns, getting adequate sleep can be especially challenging as many conditions and medications have been shown to impact sleep

Adequate, restful sleep is essential for good health, optimal physical functioning and cognitive performance, and improved ability to cope with stress. In addition, getting sufficient sleep on a regular basis can help to decrease the risk of developing diabetes, obesity, cardiovascular problems, and frequent infection. Sleep problems are prevalent amongst children and youth, which may be due to an increased demand on their time from school, sports, and other activities. In addition, school-aged children become more interested in television, computer games, the internet, and caffeinated products, which can all lead to sleep difficulties. The impact of childhood sleep problems is intensified by the direct effect on parents' sleep, including parental daytime fatigue, mood disturbances, and a decreased level of effective parenting. 25

For children and youth with mental health concerns, getting adequate sleep can be especially challenging as many conditions and medications have been shown to impact sleep. Ensuring that these children get an appropriate quantity and quality of sleep is crucial, as adequate sleep has been associated with fewer behavioural and emotional problems, including less aggression, hyperactivity, depression, and anxiety. ^{1,2} Poor sleep may also be an indicator of a medical problem, and as such should always be explored.

Parents and caregivers have been found to rarely seek help for their child's sleep problems despite the high number of children and youth who experience sleep difficulties.^{6,25} This highlights the need for health professionals to enquire about sleep and feel comfortable providing recommendations. This module provides you with helpful information to promote healthy sleep habits in children and youth with mental health challenges.

SECTION 01

Key Messages

Here are some key messages to keep in mind when discussing sleep with children, youth and their families:



1. SLEEP IS ESSENTIAL TO FEELING WELL, ACADEMIC PERFORMANCE, COPING WITH STRESS AND OVERALL FUNCTIONING

2. THE FIRST STEP TO GETTING A GOOD NIGHT'S SLEEP IS "SLEEP HYGIENE" The key ingredients of sleep hygiene are:

- Going to bed at the same time every night and waking up at the same time every morning consistency is key
- Avoiding caffeine (e.g. soda, tea, coffee, chocolate)
- Using your bedroom only for sleep and not for studying or other activities. The sleep environment should be "boring" and not associated with stimulating activities (e.g. TV, music, computer, or work). This "boring" sleep environment sends a signal to the brain to prepare the body for sleep
- Avoiding heavy exercise in the evening
- Avoiding bright light exposure after dinner including the computer and other screen activities
- Ensuring the sleep location is comfortable and quiet

3. MENTAL HEALTH CHALLENGES CAN INTERFERE WITH SLEEP

For children and youth with mental health challenges, while sleep hygiene should always be considered, it may not be enough to treat sleep problems. Additional behavioural, psychological, and/or medical treatment may be necessary.

TIPS FROM FAMILIES:

"The most important question is if your child or youth is feeling well rested during the day and has the energy to go about their daily activities"

The Guide to Healthy Living for Families, developed by The F.O.R.C.E. Society for Kids' Mental Health

4. CHILDREN AND YOUTH VARY IN THE AMOUNT OF SLEEP THEY NEED

While the amount of sleep needed varies, most children (aged 5-12) need between 10-11 hours of sleep a night and most adolescents will need approximately 9-10 hours of sleep a night. ^{3,15} Warning signs that a child/youth is not getting enough sleep include: feeling tired in the mornings or after lunch, falling asleep in school, having difficulty with concentration or memory, feeling more irritable than usual, or having less energy than usual.

SECTION 02

Discussing Sleep with Children and Youth

In this section, key considerations and resources to keep in mind when discussing sleep with children and youth are offered. These include screening tools to quickly assess sleep difficulties, suggestions for discussing sleep with families, and some specific tips for teens. An important consideration when discussing sleep is whether the family is ready to have this conversation – the family may be dealing with many issues, and sleep may not be at the top of their priority list. Module 1 outlines a suggested approach to broaching sleep and other healthy living topics.

Assessing Sleep Problems in Children and Youth

BEARS Sleep Screening Assessment:

Bedtime Problems
Excessive Daytime Sleepiness
Awakenings
Regularity and Duration of Sleep
Snoring

BEARS SCREENING ASSESSMENT

A helpful screening tool for common pediatric sleep problems is the BEARS Sleep Screening Assessment (available at the back of this module). This 5-question screening tool has been found to be more effective at identifying sleep problems within a primary care setting than asking a standard single sleep question²⁵, and includes developmentally appropriate questions for children and adolescents. Health professionals can ask initial "yes/no" questions in each of the five domains, and inquire further in the case of a "yes" response.

SLEEP DIARIES

Sleep diaries are another tool that you may find useful, and can give important information about the root causes of sleep difficulties. Health professionals can ask the child (with the help of a caregiver) or youth to fill out the diary for 1-2 weeks and bring it back on their next visit. Links to sleep diaries appropriate for children and youth can be found in Section 5 (look under 'Colorado Sleep Center of the Rockies' or 'Here to Help').

CHILDREN'S SLEEP HABIT QUESTIONNAIRE

A less time intensive alternative to a sleep diary is the Children's Sleep Habit Questionnaire (CSHQ), which is a parent-reported screening instrument with established internal consistency and validity. The CSHQ may be particularly useful for children with ADHD, and is available for free online from: www. gse.uci.edu/childcare/pdf/questionnaire_interview/Childrens%20Sleep%20 Habits%20Questionnaire.pdf

Suggestions for Discussing Sleep Problems with Children and Youth

1. EXPLORE DIFFERENT BELIEFS AND ATTITUDES TOWARDS SLEEP

Beliefs and attitudes towards sleep can vary significantly across families and cultures. It's important to find out what these beliefs are when assessing sleep difficulties, and to respect cultural preference and norms. For instance, co-sleeping with a parent is the norm in some cultures, while in others it is considered a sign of a lack of autonomy.

Parental expectations or beliefs about how much sleep their child requires may also be inaccurate. It may be the case that the child or youth is actually a good sleeper, but parental expectations of how much sleep they need are excessive for that child. These expectations and beliefs should be explored.

2. SPEAK TO BOTH THE YOUNG PERSON AND THEIR PARENTS/ CAREGIVERS

If possible, try to speak directly to both the young person and their parent/caregiver, as they may have different information and perspectives. For instance, children may be up at night while the parent is sleeping (e.g. playing video games), be experiencing daytime sleepiness (e.g. falling asleep in class), or using substances that may be interfering with sleep. Parents may have important medical information (e.g. trauma history), or be able to let you know about possible sleep difficulties that their child is not aware of (e.g. snoring). If children and their parents are providing different information, you can explore why this may be with them.

3. SPECIFIC TIPS FOR TEENS

Parents and teens should be made aware that there are basic changes in sleep physiology that begin with the onset of puberty that result in a later onset of sleepiness during the day and a later onset of alertness in the morning. ¹⁵ Thus, what parents might see as defiance may be in fact a physiological reality. Here are some tips specific to teenagers who are having difficulty sleeping: ⁹

- Sleep hygiene (detailed in Section 3) is very important. In particular:
 - Weekday and weekend wake-up times should not have more than 2 hours difference. Limiting and regulating the weekend wake-up time is critical to managing teen sleep-wake behaviours: the later the weekend sleep-in, the harder it will be to fall asleep the next night

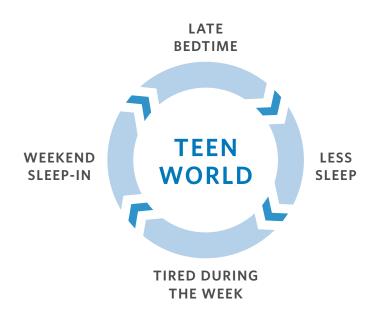


Limiting and regulating the weekend wake-up time is critical to managing teen sleep-wake behaviours



Remind teens that memory and concentration are dependent on adequate sleep

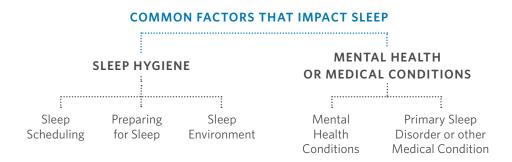
- A pattern of getting 8 hours or less of sleep during the week and sleeping into the afternoon on the weekends has become the norm in our culture, and can lead to chronic sleep problems. It can be difficult to deal with this pattern since many teens want to be like their peers and socialize later in the evenings. You can help them find viable alternatives for socialization and fun that will make them feel better because they have had a good night's sleep
- Limiting engagement in stimulating activities in the evening, such as television or video games
- Parents and teens could discuss a mutually agreeable method of waking the teen in the morning, in order to prevent or minimize difficult morning interactions
- Avoiding all nighters: remind teens that memory and concentration are dependent on adequate sleep. Some teens may complain of having 'too much to do in too little time'. If this is the case, you could discuss some stress management or time management tips with them (see Module 4)
- Bright light in the morning can help teens become more 'awake', and outdoor light can help reset the body clock



SECTION 03

Addressing Factors that Impact Sleep

There are many different factors that may lead to sleep difficulties in children and youth. The most common cause of sleep difficulties is poor sleep hygiene, and as such this should **always be addressed first**. The sleep assessment tools described in Section 2 and having conversations with both young people and their parents or caregivers can help determine whether the sleep difficulty is behavioural, medical or social in nature. Social factors may include psychosocial stress, which is known to disrupt normal sleep patterns.¹³ For more information on stress management strategies, see Module 4.



Managing Sleep Hygiene



Sleep hygiene handouts for both children and adolescents can be found at the back of this module Having good sleep hygiene (sleep habits) is a crucial component to getting a good night's sleep, and should **always** be addressed in children and youth who present with sleep difficulties. You could start this conversation by having young people and their families identify what sleep hygiene habits they already practice, and acknowledging their efforts. Social or environmental barriers to practicing good sleep hygiene may also exist – for instance, it may not be possible to provide a quiet sleep environment. Both current strengths and potential barriers should be acknowledged and addressed.

Some additional sleep hygiene tips suggested by families in B.C. who have children living with a mental health challenge can be found in the *Guide to Healthy Living for Families*, available from: keltymentalhealth.ca/toolkits



Children should be drowsy when put to sleep, but not yet sleeping – moving a child to bed after they have fallen asleep in another location can exacerbate sleep problems⁹

1. SLEEP SCHEDULING

- CONSISTENCY: Having a consistent sleep and wake routine is the #1 sleep hygiene tip that can help with sleep difficulties. Bed times and wake times need to be consistent even during weekends and holidays a child or adolescent who stays up very late on Friday and Saturday will not be tired enough to be able to go to bed early on Sunday to wake up early for school on Monday
- NAPPING: For older children and adolescents, it is best to avoid naps during the day. If the young person insists on having a nap, encourage them to limit naps to 20-30 minutes
- **PREPARING FOR EARLIER WAKE TIMES:** The sleep schedule is dictated by the time a child or youth wakes up. As such, when children and youth need to be up earlier (such as when the school year starts), emphasis should be placed on waking them up earlier in the morning, which should make them sleepier earlier in the evening, and 'reset' the sleep schedule

NOTE: If a child is irritable and tired, putting them to bed earlier and earlier may worsen the sleep difficulty because they miss the natural rise in melatonin and are awake for longer. Make sure children are drowsy when they're being put to bed



2. PREPARING FOR SLEEP

- A relaxing sleep ritual can 'remind' children and youth that it is time to go to bed. This could include reading, a warm bath, or relaxing music
- Regular exercise can help young people get a better night's sleep, but strenuous exercise within 3-4 hours of bedtime should be avoided
- Avoid alcohol, caffeine and nicotine for at least 4-6 hours before going to bed
 these substances act as stimulants and interfere with the ability to fall asleep
- If the child/youth is hungry before bedtime, they should not go to bed hungry they could try having a warm glass of milk or a light, healthy snack. For healthy snack ideas, see the handout at the back of Module 2

DEALING WITH BEDTIME STRUGGLES

Bedtime struggles include a child or youth resisting going to bed, or being unable to fall asleep without the assistance of another person, object or situation.⁹

WHAT PARENTS/CAREGIVERS CAN DO

- 1. Children need a consistent, age-appropriate bedtime and sleep schedule (including on weekends)
- 2. The bedtime routine should be short and sweet always moving in the direction of the bedroom (a picture chart, on which routine activities are listed and then checked off by the child when completed, can be helpful)
- 3. Parents must be consistent every single night for these approaches to be successful
- 4. The ability to fall asleep on a regular schedule and the ability to feel comfortable sleeping independently are learned skills. Many parents experience frustration that their child will not fall asleep without them and have tried to "stick it out" when they cry. Children with psychiatric problems may not respond to this method which may likely end in a child that is distraught and a parent who eventually gives in. When dealing with bedtime resistance to sleeping alone, parents should work with an appropriate health professional to help them resolve the difficulty in a way which leaves the child and parent more confident that bedtime will be peaceful and loving





A relaxing sleep ritual can 'remind' children and youth that it is time to go to bed



The bedroom space should be quiet and comfortable for sleeping

3. THE SLEEP ENVIRONMENT

- The bedroom space should be quiet and comfortable for sleeping. This includes an appropriate temperature, curtains to block light, and a quiet space
- Clock watching reinforces negative thoughts about not being able to fall asleep. If the child/youth has a bedside clock, they should turn it around before going to bed
- The bed should only be used for sleeping. Discourage TV watching, eating, playing on a laptop, or doing other stimulating things in the bedroom
- It could help to get the child or youth to draw a picture of their room to look for any factors that might be contributing to their sleep problems

DEALING WITH NIGHTMARES

- Avoid exposure to frightening or overstimulating images before bedtime (frightening stories, movies or TV shows)
- Ensure adequate sleep as sleep loss may increase the chance of having a nightmare
- Parents can encourage children to draw a picture representing the bad dream and then throw it away, writing the story with a happy ending, or keeping a dream journal
- If the child gets out of bed, parents/caregivers should calmly
 escort the child back to bed and briefly provide reassurance there –
 further discussion of the nightmare should be postponed until the
 following day
- Security objects can be comforting and facilitate a faster return to sleep
- Parents can reassure children that 'it was only a dream'³

For more tips on dealing with nightmares: http://sleepforkids.org

Mental Health Challenges and Sleep

Sleep disturbances are prevalent in many children and adolescents with mental health conditions. While changes to sleep hygiene are recommended as a first choice intervention, sometimes additional intervention is required. Periodic screening for sleep difficulties should be part of the ongoing management of every child with diagnosed psychiatric disorders.³ The following mental health conditions are highlighted, as sleep difficulties are particularly common within these groups:

AUTISM SPECTRUM DISORDERS (ASD)

Common Findings

Children with ASD experience more sleep problems than the general population⁷

 Treatment of sleep problems in children with ASD should be multifaceted⁹

Summary of evidence and recommendations

- Bedtime routines are crucial, as is paying special attention to the sleep environment 9
- Massage therapy administered nightly before bedtime (for approximately 15 minutes) may be effective^{9,19}
- Because children with classic autism are at higher risk for epilepsy, nocturnal seizures must be considered⁹
- The impact of medications must be assessed, as they may have an impact on sleep⁹
- Addressing sensory hypersensitivity associated with the sleep environment may help improve quality of sleep. Parents have reported weighted blankets being helpful in children with tactile sensitivities. The sleep environment should provide the most comfortable temperature, preferred texture of the pajamas and bedding, and optimal control of noise and light. Some children may benefit from white noise machines or other soothing sounds during sleep⁷
- Melatonin therapy, in conjunction with behavioural techniques, may be considered if behavioural techniques alone are not effective^{9,10}

ATTENTION DEFICIT HYPERACTIVITY DISORDERS (ADHD)

Common Findings

- Many children who are diagnosed with ADHD have sleep problems. This may be related to hyperarousal intrinsic to ADHD, comorbid psychiatric conditions, concomitant medications, and/or coexisting primary sleep disorders^{3,4,16,21}
- Recent research has confirmed a higher incidence of initial insomnia, decreased total sleep, and excessive daytime sleepiness which may be masked by the hyperactivity²⁶

Summary of evidence and recommendations

- Sleep hygiene has been shown to improve sleep quality in children with ADHD²²
- The **most important** sleep hygiene measure is to ensure a consistent bedtime routine and regular sleep and wake times¹⁶
- If sleep difficulties are medication-induced, adjustments in the types, dose and dosing schedules of medications should be considered³
- Consideration may be given to the use of melatonin in cases where sleep hygiene and medication adjustments have been ineffective^{3,4,16} (see Section 4 for additional information on melatonin)
- Sleep disorders, including restless leg syndrome (RLS), periodic limb movement disorder (PLMD), and sleep disordered breathing (SDB) have higher reported incidences in children with ADHD^{3,8,20}

ANXIETY DISORDERS

Common Findings

Anxiety disorders frequently associated with sleep problems in children include separation anxiety disorder, generalized anxiety disorder, and posttraumatic stress disorder (PTSD)^{3,9}

 Nightmares may be more common in this population, especially amongst children who have experienced trauma or who have PTSD⁹

Summary of evidence and recommendations

- For children with anxiety around bedtime, a temporary later bedtime that coincides more closely with the actual sleep onset time may relieve some of the anxiety associated with bedtime and falling asleep³
- Once bedtimes are established, they should be firmly enforced to avoid reinforcement of stalling behaviours³
- Teaching of relaxation techniques, such as deep breathing or visual imagery (see Module 4)3
- Identification and elimination of additional factors (e.g. alcohol use or medications) that may be impacting both the psychiatric disorder and the sleep disturbance³

EATING DISORDERS

Common Findings

 Studies concerning sleep and eating disorders have led to conflicting results; some studies suggest patients with eating disorders may experience sleep problems²³

Summary of evidence and recommendations

- Studies that do show a correlation find that the most common disturbances are difficulty falling asleep and midsleep awakening²³
- Sleep problems could be related to an associated anxiety or mood disorder refer to these sections for additional information
- NOTE: Sleep-related eating disorders should be viewed as an independent clinical syndrome and treated by an appropriate health professional

FETAL ALCOHOL SPECTRUM DISORDERS (FASD)

Common Findings

Many children with FASD have long-standing sleep disturbances which interfere with their daily activities, cognition, health and behaviour¹⁸

Summary of evidence and recommendations

- Sleep hygiene practices need to be individually tailored to the child
- Children with FASD may have a melatonin deficiency. A best practice recommendation is to provide melatonin and sleep hygiene simultaneously¹⁸
- A sleep hygiene handout specific to children with FASD can be found at the back of this module

MOOD DISORDERS

Common Findings

- Sleep disturbances, including insomnia and hypersomnia, are reported in up to 75% - 90% of children and adolescents with major depressive disorder (MDD)^{3,9,10}
- Sleep disturbances are common in children with bipolar disorder^{3,9,14}
- Many antidepressants, most notably SSRIs, may have disruptive sleep effects³

Summary of evidence and recommendations

- Development of a regular sleep routine, including consistent sleep and wake times³
- Treating the primary psychiatric disorder in ways that do not exacerbate sleep disturbances³
- Eliminating exacerbating factors, including alcohol use, cigarette smoking, and substance use³

SUBSTANCE USE/ABUSE

Common Findings

- Many substances, including nicotine, amphetamines and alcohol, have been shown to interfere with sleep³
- Adolescents who use marijuana heavily have been shown to have compromised objective indicators of sleep quality²⁷

Summary of evidence and recommendations

• Efforts should be made to increase awareness as to the effects of these substances on sleep. If these substances are interfering with sleep, efforts should be made to discontinue use.³

Primary Sleep Disorders and Other Medical Conditions Resulting in Disturbed Sleep

Primary sleep disorders that commonly occur in children and adolescents include restless leg syndrome, bruxism (teeth grinding), and sleepwalking.¹⁷ Secondary sleep disorders can result from respiratory disorders (asthma, sleep apnea), gastro-esophageal reflux and sleep-related epilepsies. If the sleep difficulty is thought to be caused by a primary sleep disorder or other medical condition, a referral should be made to an appropriate health professional.

RECOGNIZING RESTLESS LEG SYNDROME (RLS)

RLS has a higher reported incidence in children with ADHD.^{3,8,20} Symptoms of RLS include the urge to move limbs during sleep and difficulty sleeping. Children may use words like "oowies, tickle, spiders, boo-boos, itchy bones, creepy/crawly, a lot of energy in my legs" to describe their symptoms. Sleep hygiene should include a regular sleep and wake schedule, avoidance of heavy exercise close to bedtime, and eliminating stimulating activities at night. Treatment of iron deficiency is also thought to be effective.¹²

SECTION 04

Medications And Pediatric Sleep Difficulties

MEDICATIONS FOR SLEEP DIFFICULTIES IN CHILDREN AND YOUTH

Currently there are no medications for inducing sleep that have been tested in children or youth, with the exception of melatonin. While good sleep hygiene should always be implemented as a first line treatment, there may be some mental health conditions where sleep hygiene in conjunction with melatonin may be optimally effective.

GUIDELINES FOR MELATONIN USE

- There may be misperceptions about melatonin use in the general public.
 A BC Children's Hospital information sheet may be useful to better inform
 parents/caregivers about melatonin a link to this resource is available in
 Section 5 of this module
- Effects on sleep architecture include: reduced sleep onset latency, increased sleep duration, and a tendency to move from 'being a night owl to a morning lark' (normalization of circadian rhythm)¹¹
- For more information on adverse effects and monitoring parameters, please see the *Commonly Used Psychiatric Medications Monitoring Guide for Children and Adolescents*, available as a link from Module 6
- Recommended clinical uses of melatonin:
 - May be useful for children with ADHD^{4,16},FASD^{5,18}, ASD¹⁰
 - For children with ADHD: May facilitate sleep. Initial doses have most often ranged from 3-6 mg, administered approximately 30 minutes before a scheduled bedtime⁴
 - For children with FASD: Immediate-release melatonin is best for sleep onset difficulties and slow/controlled release is best for frequent awakenings. The oral dose should be given about 30 minutes before bedtime. There are no dose formulas that fit everyone suggested to start with 1-2 mg of melatonin and make small incremental changes⁵
 - For children with ASD: A controlled-release melatonin formulation is suggested, and immediate-release melatonin can be added when response to treatment is incomplete¹⁰



Many medications prescribed to children and youth with mental health conditions have profound effects on sleep.³ For a listing of common psychiatric medications and side effects (including sleep-related side effects), see the Commonly Used Psychiatric Medications Monitoring Guide for Children and Adolescents, available as a link from Module 6

Resources and Handouts



In this section, you will find resources that may be helpful to both yourself as well as to the families you see in your daily practice. At the end of this section, you will find some tools and handouts. Some of these tools will be useful for you to use with the children and youth you see (e.g. assessment tools), while others can be given to children, youth or parents/caregivers as a handout. Feel free to photocopy any handouts you find useful, and store them in the plastic sleeve found at the back of the toolkit.

Online Resources

Organization	Details	Web Address
Kelty Mental Health Resource Centre	 Sleep promoting medication information sheets for parents and caregivers 	http://keltymentalhealth. ca/finding-help/medication- information-sheets-4
	An interactive bedtime routine chart for parents and children	http://keltymentalhealth.ca/ healthy-living/sleep
Colorado Sleep Center of the Rockies	Downloadable sleep diary for kidsInformation on sleep difficulties in children	www.sleepcenterotr.com/ pediatrics.php
Here to Help	 Free downloadable sleep resource with top sleep hygiene tips and a sleep diary tracking sleep hygiene practices 	www.heretohelp.bc.ca/skills/ module6
KidsHealth (Children)	• Information on sleep geared to children	www.kidshealth.org/kid/ (search 'sleep')
KidsHealth (Teens)	• Information on sleep geared to adolescents	www.kidshealth.org/teen/your_ body/take_care/sleep.html
National Sleep Foundation	 Website geared to kids, includes interactive games and challenges on sleep benefits, hygiene, barriers, nightmares and more 	www.sleepforkids.org
University of California	 Children's Sleep Habit Questionnaire (available for free download) 	www.gse.uci.edu/childcare/ pdf/questionnaire_interview/ Childrens%20Sleep%20 Habits%20Questionnaire.pdf

Books

FOR PROFESSIONALS

Mindell, JA, & Owens, JA (2003). A Clinical Guide to Pediatric Sleep. Diagnosis and Management of Sleep Problems. PA: Lippincott Williams & Wilkins. NOTE: Includes an appendix with patient handouts

FOR PARENTS

Owens, JA, & Mindell, JA (2005). Take Charge of Your Child's Sleep. New York: Marlowe and Company.

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Tools and Handouts

BEARS Sleep Screening Tool



	TODDLER/PRESCHOOL (2-5 YEARS)	SCHOOL-AGED (6-12 YEARS)	ADOLESCENT (13-18 YEARS)
B EDTIME PROBLEMS	Does your child have any problems going to bed? Falling asleep?	Does your child have any problems at bedtime? (P) Do you have any problems going to bed? (C)	Do you have any problems falling asleep at bedtime? (C)
EXCESSIVE DAYTIME SLEEPINESS	Does your child seem overtired or sleepy a lot during the day? Does he/she still take naps?	Does your child have difficulty waking in the morning, seem sleepy during the day or take naps? (P) Do you feel tired a lot? (C)	Do you feel sleepy a lot during the day? In school? While driving? (C)
A WAKENINGS DURING THE NIGHT	Does your child wake up a lot at night?	Does your child seem to wake up a lot at night? Any sleepwalking or nightmares? (P) Do you wake up a lot at night? Have trouble getting back to sleep? (C)	Do you wake up a lot at night? Have trouble getting back to sleep? (C)
REGULARITY AND DURATION OF SLEEP	Does your child have a regular bedtime and wake time? What are they?	What time does your child go to bed and get up on school days? Weekends? Do you think he/she is getting enough sleep? (P)	What time do you usually go to bed on school nights? Weekends? How much sleep do you usually get? (C)
Snoring	Does your child snore a lot or have difficult breathing at night?	Does your child have loud or nightly snoring or any breathing difficulties at night? (P)	Does your teenager snore loudly or nightly? (P)

(P) Parent-directed question (C) Child-directed question

Reproduced with permission from: "A Clinical Guide to Pediatric Sleep: Diagnosis and Management of Sleep Problems" by Jodi A. Mindell and Judith A. Owens; 2003: Lippincott Williams & Wilkins.

Recommendations for Sleep Health for Children with FASD



General Considerations

- Children with FASD frequently have a melatonin deficiency which leads to disturbed sleep patterns
- Sleep disturbances should be treated early and appropriately as they lead to neurocognitive, behavioral, and health difficulties
- Intervention services may be ineffective when sleep deprivation is present
- The functioning of children with FASD is highly variable; therefore developmental evaluations are helpful to understand their strengths and weaknesses
- Sleep hygiene practices designed for typical children are often not useful for those with FASD as interventions need to be tailored to individual abilities
- Caregivers and involved professionals should work together in a team
- Modifying the environment, protection from over-stimulation at home, in school and in social situations are important principles in the general management of children with FASD
- The rich learning experience that is required for typical children may lead to over-loading and disturbed sleep for children with FASD
- Sleep hygiene interventions are increasingly hard to enforce and less effective in children with more severe cognitive loss

Sleep Environment

- The children's reactions to the environment should always be carefully observed
- The bedroom needs to be quiet, comfortable (temperature, non-irritating clothing and bedding), familiar, secure, consistent and unexciting (minimal furniture without clutter, strong odors, bright lights and colors)
- Do not use the bedroom for punishment or play

Preparation for Sleep

- Calming behaviors and wind-down rituals promote sleep
- Beverages containing caffeine or chocolate, excessive mental and physical behaviors, TV and video games should be avoided in the evening to minimize alertness and delayed sleep onset
- Bedtime activities require supervision with emphasis on general hygiene which is often poor in later life

Sleep Scheduling

- Enforcing rules, structure, routine and consistency are important not just at bedtime but all day
- Times for bed and getting-up need to be consistent, even during weekends and holidays
- Melatonin replacement therapy for the child combined with sleep health promotion techniques may be useful to establish sleep scheduling

Sleep Hygiene for the Caregivers

- Raising a child with FASD is a difficult task, thus the sleep health and the emotional needs
 of the caregivers must always be considered
- Caregiver sleep patterns are linked to those of the child. Treatment of the child's sleep disturbance with melatonin may lead to better sleep health of the caregivers and reduced burden of care

Reproduced with permission from: James, E. Jan, Kwadwo O. Asante, Julianne L. Conry, et al. "Sleep Health Issues for Children with FASD: Clinical Considerations".

International Journal of Pediatrics, vol. 2010. Article ID 639048, 7p. doi: 10.1155/2010/639048

Sleep Tips for Kids



Here are some things you can do to help get a good night's sleep:

Try to go to bed and wake up at the same time every day

Your body will get used to a schedule



Try to avoid caffeine – especially in the afternoon and at night

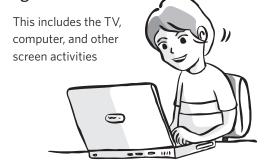
Caffeine can be found in many foods and drinks, like chocolate and sodas

Make sure your bedroom is dark, quiet and comfortable

You can ask your parents for help



Try to avoid bright lights after dinner



Exercise during the day

Running and playing during the day can help your body get ready for sleep (try not to exercise within 3-4 hours of your bedtime)



Have a bedtime routine

Do the same relaxing things before bed each night, like taking a warm bath, reading, or listening to quiet music. Your body will know it is time to get ready to sleep



MANAGING STRESS for young people

Checklist for a good sleep

Sleep problems are common during times of stress, and poor sleep can make the stress that much worse. You may find you spend a lot of time in bed sleeping but just don't feel rested. Or, you may find that you have a lot of problems falling asleep.

steps to a better sleep

You'll find that getting good sleep every night will help you feel better during the day.

Here are some things that you can do to help you get a better night's sleep.

- 1. Set a time to go to bed and wake up, and stick to this seven days a week.
- Avoid caffeine, alcohol, nicotine and heavy exercise after dinner.
- 3. Do something relaxing to unwind before going to bed.
- 4. Avoid using the bed as a place for reading, watching TV, eating or working.
- Keep your bedroom dark, quiet and at a comfortable temperature. Make sure your bed is comfortable.
- 6. If you don't fall asleep after you've been in bed for 30 minutes, get up and engage in a quiet activity, such as reading, until sleepy.
- 7. Only use sleeping medication as prescribed by your doctor.

Avoiding caffeine and relaxing before going to bed can help ensure a good night's sleep.

managing stress

Visit **mindcheck.ca** for other strategies to help you manage stress, such as relaxation, time management, problem-solving and goal-setting.

Check it out... Act now!









Medication Resources

Medication Resources



Many medications used to address mental health challenges affect the ability of children and youth to develop and maintain healthy living habits. These medications may alter appetite, impact sleep, or reduce energy levels. For instance, second generation antipsychotics (SGAs) may cause strong increases in hunger and potential cravings for carbohydrates, which in turn may cause significant weight gain in a very short period of time. NOTE: SGAs may also be known as or referred to as atypical antipsychotics (AAPs) by some health professionals and families.

Each of the modules in this toolkit include medication information specific to the healthy living topic addressed. Below, you will find some general medication resources for both health professionals and families. As medication information changes frequently, key resources in this section can be found online so that you will be able to access the most up to date information.

FOR PROFESSIONALS

Organization	Details	Web Address
Kelty Mental Health Resource Centre	Information for parents and caregivers on the use of specific psychiatric medications in children and adolescents	http://keltymentalhealth.ca/ treatment/medications
	 Atypical antipsychotics and metabolic monitoring tools and resources 	http://keltymentalhealth.ca/ partner/metabolic-syndrome-and- mental-health
	 Information for health-care professionals caring for children or adolescents who will be starting or who are already using atypical antipsychotic medications 	mental-nealth
	 Information on the Provincial Mental Health Metabolic Program, which provides specialized management for children and youth with both mental health and endocrinology/ metabolism complications 	

FOR PROFESSIONALS (CONTINUED)

Organization	Details	Web Address
Canadian ADHD Resource Alliance (CADDRA)	 ADHD practice guidelines, as well as children's medical treatment options 	www.caddra.ca/cms4

FOR FAMILIES

Organization	Details	Web Address
Kelty Mental Health Resource Centre	 Information and resources to help parents and caregivers make informed decisions about medication for their children 	keltymentalhealth.ca/treatment/ medications
	 Handouts for families on common psychiatric medications given to children and youth 	
	 Medication monitoring forms for patients, caregivers and physicians to monitor medications and side effects 	
	Atypical antipsychotics and metabolic monitoring brochure for families	keltymentalhealth.ca
		(look under Metabolic Syndrome and Mental Health)
Psychosis Sucks	 Includes information on the treatment of psychosis, including medication options 	www.psychosissucks.ca/epi/ treatment.cfm#medication

FOR FAMILIES (CONTINUED

Organization	Details	Web Address
American Psychiatric Association	 Parent medication guides for ADHD and depression 	www.parentsmedguide.org
	 Designed to help families and physicians make informed decisions about obtaining and administering the most appropriate care for a child with ADHD or depression 	
	NOTE: This is an American resource. Some American drug names are different than in Canada, and many medications either available or approved in the U.S. for children are not available or approved in Canada	
American Academy of Child & Adolescent Psychiatry	 Fact sheets on psychiatric medications for children and adolescents, including information on how they are used, types of medications, and questions to ask 	www.aacap.org/cs/new_ psychiatric_medications/ psychiatric_medications
	NOTE: This is an American resource. Some American drug names are different than in Canada, and many medications either available or approved in the U.S. for children are not available or approved in Canada	
National Institute of Mental Health	Guide describes the types of medications used to treat mental disorders and side effects of medications	www.nimh.nih.gov/health/ publications/medications- listing.shtml
	 Includes answers to frequently asked questions about the treatment of mental disorders in children 	
	NOTE: This is an American resource. Some American drug names are different than in Canada, and many medications either available or approved in the U.S. for children are not available or approved in Canada	

