

Healthy Habits for Healthy Humans

Instructor's Guide



Foundation for Resilient Health
Fondation pour la Santé Résiliente

B R E A T H E
the lung association

R E S P I R E Z
l'association pulmonaire

Welcome to Healthy Habits for Healthy Humans!

Thank you for choosing to teach your students, clients, or participants about the information in this program to help them and their families take action to promote immediate and long-term vibrant health.

The contents of this manual are intended to help guide you, the instructor, through the materials provided and ensure clients and students understand why the program was designed. The objectives of the following manual are to ensure consistent delivery of the materials, provide tools and resources to guide instructors, and allow you to submit feedback from sessions.

Program delivery involves engaging the participants in several active steps based on community-based social marketing. This is an approach to behaviour change founded by Dr. Doug McKenzie-Mohr. It involves identifying and overcoming any barriers to change, working alongside others who are committed to change, and reviewing the effectiveness of your efforts. You can learn more through the following link.

<https://www.cbsm.com/about>

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Introduction

Toxic substances are all around us and affect everyone. Everyone reacts differently to the toxic substances around them. Several populations are considered more vulnerable or at risk such as older and very young people, those with pre-existing conditions (such as lung disease, cardiovascular disease, diabetes) and marginalized and isolated populations.

Most of us have used a variety of products for years. We tend to assume that consumer products are safe simply because they are available on the shelves of stores we trust. Product testing and research is ongoing and we are learning that many substances in products can have negative health effects. From household cleaning products, laundry detergent, children's toys, food items and beauty products there are simply too many options to attempt an educated guess at what is the best choice. Too often harmful ingredients are hidden in plain sight with ingredients listed as fragrance or perfume, artificial colour or flavour, and in scientific names that may be unfamiliar.

We might have become too complacent when it come to the everyday products that we choose to use in our homes. Government protective policies are based not only on the toxicity of a substance but also on the amount of the toxic substance in the product and many products have low amounts. However, for sensitive populations, these low amounts can have serious health effects.

This project highlights many simple actions we can take to protect ourselves and families. Healthy Habits for Healthy Humans focuses on identifying and reducing exposure to toxic substances with tips for healthier foods choices, improving indoor air quality, eliminating plastics, safer personal care and cosmetic products, and avoiding harmful chemicals when you clean or eliminate pests. The goal of the program is for participants to implement one or multiple changes in their lives that they are able to continue long-term.

As a basic rule, we can focus on the KISS principle: "Keep it Simple and Sustainable"

Course Content

- Instructor's manual
- Power point presentation with notes
- Website
- Brochure
- Commitment ideas
- Commitment forms
- Course content survey/evaluation
- Suggested research sites
- Online presentation and how to videos*
- Recipe book(s)*

Course content can easily be modified to meet the needs of various age groups, interests, and educational levels.

*Coming soon

Objectives

Objectives for instructor:

- Teach the participants how everyday habits may affect their overall health.
- Educate the participants about how to change behaviours.
- Teach the participants simple ways to have a healthier lifestyle.
- Ensure the participants are comfortable enough with the content to share information with others.
- Get commitments for actions from participants.
- Gather data on numbers of participants and their success in taking action on their commitment.

Learning objectives for participants:

- Participants should be aware of how every day habits may be affecting their immediate and long-term health.
- Participants should become familiar with how and why to effectively change their own behaviours.
- Participants will commit to taking one or two simple healthy actions.
- Participants should be ready to engage with others to educate them.
- Participants get commitments for actions from those they engage with, follow-up with them to learn if commitments were achieved and track numbers of people they engage and types of actions taken.

Delivery Components

This program is designed to be informative and lead to behaviour changes for a healthier life. The course content includes a Power Point presentation, a website for research purposes, an information brochure, commitment forms, tracking forms, and a program delivery survey. In the presenter notes of the PowerPoint file, you will find additional information that will improve your ability to teach the participants. If you desire more information on any related topic, please check out the following websites: David Suzuki's Queen of Green, Lesstoxicguide.ca, and Health Canada.

Part 1: The Presentation

In a classroom or face-to-face community setting (or online presentation) the instructor will inform the audience by presenting the Power Point “Healthy Habits for Healthy Humans”. The presentation should be interspersed with discussions about what some attendees are currently doing that may be affecting their health and what action they may commit to in order to limit their and their family’s exposure to toxic chemicals.

Although face-to-face delivery of behaviour change programs is generally preferred, during the COVID-19 pandemic Healthy Habits for Healthy Humans was successfully piloted using videoconferencing software (e.g. Zoom, Teams, Facebook messenger videochat). We will also offer the use of short pre-filmed videos for your audience.

Personalizing the presentation

You are welcome to adjust the PowerPoint presentation by adding or removing slides, changing the logo to your organization’s, etc. You will want to personalize the presentation to better suit your audience or the context of delivery.

One way you can personalize the presentation is to use more time on a specific topic within the program. For example, the presenter could choose to get in-depth about cosmetics or about children’s toys. You can find some bonus slides at the end of the PowerPoint Presentation that you can use to teach on a topic more deeply.

Another way to personalize the presentation is by reframing the whole program around one topic/scenario of relevance. For example, the whole presentation could be focused on food waste or toxic exposure to kids. See Appendix A for an outline of how the presentation could be centered on children’s exposure to toxins in the house.

Part 2: Behaviour Change

- a) First the participants will identify one or who behaviour changes and sign a commitment to make those changes in their life.
- b) Depending on the delivery situation, you will contact the participants after a few weeks or a few months to follow-up on their progress. Were they able to implement the change? How well has it been going? Are there ways to recommit to support the new behaviour?

- c) Record the data from participants, about their behaviour change commitment and if they sustained the behaviour change for the duration of the project.

Discussion

A major component of this content is focused on changing one's behaviour, which is a process and does not occur overnight. Spending some time discussing how behaviour change can be achieved will be beneficial to the audience. The program provides a number of suggested behaviour changes that are simple to implement and effective at reducing exposure to chemicals. Participants can be encouraged to choose multiple behaviour changes, because they were so simple to implement!

To identify barriers that will hold you back or a key motivation that will help push you forward, ask the following questions:

Why do you want to change? Is there anything preventing you from changing? Why haven't you made this change before now? How can you address those barriers to change? What are some things that could help you make this change?

It's also vital to change that everyone understands the content they just heard. If there is any confusion or questions about the content of the presentation, encourage participants to share that with the group so that you can clarify it.

Follow Up

The homework portion of this project is unique to each participant. We ask each participant to identify an area – from the presentation or elsewhere – where they want to make a behaviour change. They will identify and write down an action that they commit to introducing or changing in their daily life. We also ask participants to think of three peers, friends, or family members with whom they can share their learned information, and ask them to make commitments for change.

The instructor follows up with the participants after the presentation to check on their progress, to keep them accountable. Follow-up should take place about two weeks to 2 months after the presentation depending on the time constraints of the course. Accountability is a key component to effective behaviour change.

Supplementary Information

Canada's Chemical Management Plan

Canada's "Chemical Management Plan" (CMP) is the process our country is taking to review the risk of thousands of chemicals that are already on the market in Canada, and to develop a management strategy for the use of those chemicals. This is a joint endeavour run by Health Canada and Environment and Climate Change Canada. The Canadian Network for Human Health and the Environment (CNHHE) supports Health Canada and Environment and Climate Change Canada by educating and engaging civil society, health professional, and academic experts across Canada to provide advice to CMP on the hazards and risks of each chemical being reviewed.

CMP was launched in May 2006, with 4300 chemicals identified as "priorities" to be reviewed. Even with risk management plans in place, many chemicals are still available in the marketplace, and many are common in household products.

Because there are still some dangerous chemicals in products we use, we want to protect ourselves and those we love. One way to do that is to avoid hazardous chemicals as much as possible. This Program recommends ways to protect your health from exposure to many of these common toxic chemicals.

<https://www.canada.ca/en/health-canada/services/chemical-substances/chemicals-management-plan.html>

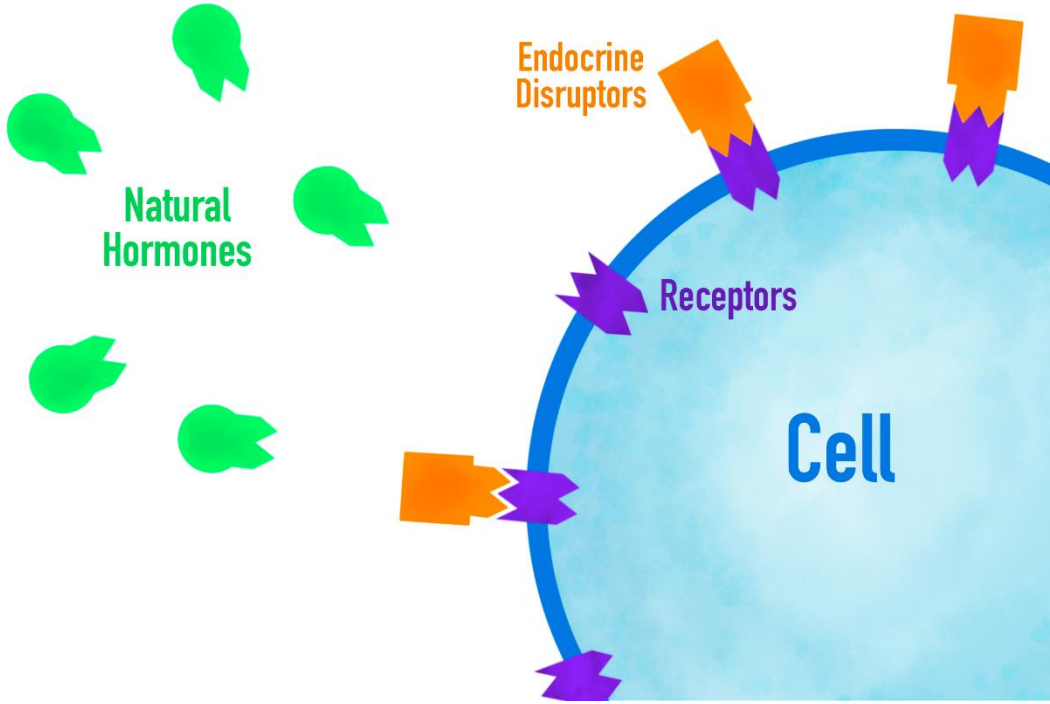
Endocrine Disruptors

The term endocrine disruptor is going to come up a few times during the presentation. So what are they? You may also hear them called hormone disruptors because it's the endocrine system that controls our hormones.

They are defined as a foreign agent that "interferes with synthesis, secretion, transport, metabolism, binding action, or elimination of natural blood-borne hormones" in our bodies. These chemicals mimic or interfere with our naturally produced hormones. They can affect our reproductive systems including puberty and fertility, thyroid, and more. They are also associated with developmental, brain, immune and other problems.

You can find out more about endocrine disruptors, their mechanisms, dangers, and recommendations for prevention at the following link.

[https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2726844/#:~:text=The%20group%20of%20molecules%20identified,%2C%20plasticizers%20\(phthalates\)%2C%20pesticides](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2726844/#:~:text=The%20group%20of%20molecules%20identified,%2C%20plasticizers%20(phthalates)%2C%20pesticides)



Glossary of Terms

Bisphenols: synthetic chemical compounds used in the production of hard plastics. The most recognized form is Bisphenol-A (BPA) which has been banned in some countries as it is a known **endocrine disruptor**. BPA was banned in Canada in baby bottles in 2010. BPA was replaced in many products with other bisphenols, and as such, products labeled “BPA free” may still contain harmful bisphenols. Plastics that contain bisphenols are generally associated with the identification code 7 within the recycling symbol. These plastics are not recommended for food storage.

Carcinogen: a substance capable of causing cancer in living tissue. Many everyday substances can contain multiple known carcinogens. Common examples are cigarette smoke, radon, processed meats and some moulds.

Carbon Monoxide (CO): a highly toxic gas, which is colourless, tasteless and odorless. This naturally occurring gas is produced by the incomplete combustion of hydrocarbons. Common sources are vehicle exhaust fumes, smoke of any kind, and improperly functioning oil or gas furnaces, and oil or gas appliances meant for outside use.

Do-it-yourself (DIY) cleaners: making your own cleaners is a safe and effective way to reduce exposure to toxic and unknown chemicals in your home. Vinegar, baking soda and dish soap can replace most, if not all, the cleaning products in your home.

Dust: is made of fine particulate matter from many sources. In your home dust can be a chemical soup of particles such as, pet dander, soils, pesticides, dead skin, hairs, and textile fibres (which often contain flame retardants).

Endocrine-disruptors: substances that can alter (disrupt) the normal functioning of the body’s hormone systems which can cause increased likelihood of cancer, obesity, or diabetes, delay or impair growth and development, disrupt the nervous system, and reduce the ability to reproduce. Endocrine-disruptors are also called *hormone disruptors*, as the body’s system of producing and regulating hormones is known as the *endocrine system*.

Exposure: as it relates to environmental health, is the act and amount of contact with something that is dangerous to human or environmental health Example: mid-day sun without sun protection, smoke of any kind, asbestos fibres.

Flame Retardants: are chemicals which are added to manufactured goods to slow ignition or prevent fires. Research has proven that chemicals used in flame retardants have negative health effects such as delayed development in children. Common household goods that contain flame retardants are textiles (blankets, clothing, furniture) and electronics.

Hazard: the potential for harm or an adverse effect.

Highly processed foods: foods that have had a series of mechanical or chemical operations to alter or preserve it, from its original state. When eaten regularly, these foods can contribute to an excess intake of sodium, free sugars, or saturated fat which can lead to high blood pressure, weight gain, dental decay in children, type 2 diabetes, cardiovascular disease and increased risk of cancer.

Low mercury fish: choices such anchovy, capelin, char, hake, herring, Atlantic mackerel, mullet, Pollock (Boston bluefish), salmon, smelt, rainbow trout, lake whitefish, blue crab, shrimp, clam, mussel and oyster, and “light” canned tuna.

Metals (including arsenic, manganese, lead, and mercury): naturally occurring elements in our environment. Some metals, such as calcium, are important for our bodies. Others, like arsenic, manganese, lead, and mercury can cause cancer or lead to **neurological disorders**, especially in young children. The body cannot use, or get rid of, lead or mercury. These metals can build up in the body (bioaccumulate), and be passed from a pregnant mother into her baby.

Mould: fungus that grows on food or damp materials. Growing mould will release spores that are small enough for people to breathe in. Breathing in the spores may cause health effects.

Perfluorinated Chemicals are found in coatings to prevent sticking, and in water repellent fabrics. Coated frying pans, some water proof coats and grease-proof paper may contain these chemicals.

Pesticides: chemicals used to protect food crops from pests like insects, weeds, and fungal disease. Residues of pesticides can be found in the food we eat.

Phthalates: a group of chemicals used in many plastics and personal care products. In plastics, phthalates do not always remain within the plastic, and can enter our bodies. A common way we can be exposed is when plastics are heated in the microwave, or used to store hot food. This can cause the phthalates to enter our body. Personal care products applied directly to the skin can lead to phthalates entering the body through the skin. Phthalate exposure can cause reproductive health and development problems. Babies can be exposed while in the womb because phthalates can cross the placenta.

Plastics: very common in modern life. It is important, though, to recognize the environmental impact of our plastic use. Plastic is made from petroleum, and so has many of the same environmental impacts as oil and gas extraction from the earth. Many plastics will not be, or cannot be recycled. Also, some types of plastics contain **phthalates, flame retardants, bisphenols and styrene**. You can protect yourself from these chemicals by not heating food in plastic (containers or film), and not storing hot food in plastic containers.

Radon: is a radioactive gas that is present naturally in some types of rocks. The **rocks** release the gas through natural processes, and the gas enters the atmosphere. If a building is built on this type of rock, the gas can come inside through the foundation.

Radon is the leading cause of lung cancer in non-smokers. You cannot smell, see, or taste radon. The only way to learn if you have high (hazardous levels) of radon is to test the air. Radon test kits are available through your local Lung Association. Local radon professionals, some retailers or laboratories may also carry radon test kits.

Reproductive toxin: a substance or agent that can cause adverse effects to reproductive organs, their function and maturation.

Risk: the hazard posed by a substance combined with the way and amount that people and the environment are exposed to it.

Scented products: products that have added chemicals to provide appealing smells, or mask unpleasant smells. Often labeled as fragrance, it can be hard to determine exactly which chemicals have been added.

Smoke (wood, cigarette, cannabis): particles released from a burning substance. Wood stoves, cigarettes, and smoke cannabis are all sources of smoke that release small particles, **carcinogens** and/ or **toxins**.

Styrene: a chemical used to make latex, synthetic rubber and polystyrene resins often found in plastic packaging, insulation and disposable cups. Styrene is produced naturally by some plants and exposure can occur by breathing in the air. Long term exposure can have negative effects on the central nervous system.

Sustainable foods (meat/fish/dairy): preserve and protect the food source and the resources used in the production process for future generations. Sustainable food systems deliver food security and nutrition to **all** in a way that does not compromise the product, the environment, society or the economy.

Toxin / toxic substance: a substance that can harm living tissue / organisms. Also known as poison.

Vape: vapour release by heating nicotine or cannabis containing products for inhalation. In addition to the cannabis or nicotine (known carcinogen), the chemical additives in the products are released during vaping.

Appendices

Appendix A – Personalizing the presentation example

Children’s Exposure

Reducing the presence of contaminants in different media that children may come into contact with is an important step in protecting children’s health. It’s important to remember that exposure beginning from conception can impact the health and development of a child throughout their life.

Some effects of childhood exposure to toxic chemicals include asthma (onset or exacerbation), birth defects, intellectual disabilities, and various cancers.

Air – Same hazards (Radon, scented products, smoke, etc). Children’s lungs are small and they breathe more often than adults to support themselves. That means their rate of exposure per body weight to toxins in the air is much higher than for adults. Introducing exposure at a young age may mean that the child will be exposed for much of their entire life, increasing the risk of a harmful effect occurring. Exposure to a radioactive component like radon at a young age means that there is time (the whole life time) for mutations to occur and cancer to develop to a deadly stage in the lungs.

Dust and Mould – Kids are low to the ground and are likely to use their mouths while exploring, which means they will have the greatest exposure to dust, and possibly mould. Dusting and cleaning regularly are effective ways to reduce exposure. Consider the areas where children may play that aren’t frequented by adults, such as beneath furniture or inside closets. Read the labels on cleaning products, many are full of toxic ingredients. Do some research to determine what items you have in your home that you can use to clean, such as vinegar, baking soda, and citrus peels. Store all cleaning products away from the reach of children.

Plastic – Focus on materials used to make toys and children’s dishes. Never reheat food on kids’ plastic dishes, including plastic baby bottles. When purchasing toys, check for “PVC free” and “phthalate free” labels, especially for toys that may be put in the mouth.

Food – Discuss the ingredients lists on baby food or snacks targeted towards kids. The ideal is the same as for adults: fresh, organic, variety. Test your water to know that it is clean and safe to ingest. Lead pipes in older water systems may leach lead into water, while private water wells may have naturally occurring (yet hazardous) bacteria or elements such as lead, manganese or arsenic.

Personal Care Products – Discuss the contents of kid-safe bathroom products. Beware of lead in children’s jewelry. You can sign up for recall alerts from Health Canada at the following link.

<https://healthycanadians.gc.ca/recall-alert-rappel-avis/index-eng.php>