

FIT & WELL

CORE CONCEPTS AND LABS IN PHYSICAL FITNESS AND WELLNESS

 Fifth Canadian Edition



FAHEY INSEL ROTH WONG

FIFTH CANADIAN EDITION

FIT & WELL

CORE CONCEPTS AND LABS IN PHYSICAL FITNESS AND WELLNESS

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**Fit & Well: Core Concepts and Labs in Physical Fitness and Wellness
Fifth Canadian Edition**

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Preface

For today's fitness-conscious university/college student, the fifth Canadian edition of *Fit & Well* combines the best of two worlds. In the area of physical fitness, *Fit & Well* offers expert knowledge based on the latest findings in exercise physiology and nutrition, along with tools for self-assessment and guidelines for becoming fit. In the area of wellness, it offers accurate, current information on today's most important health-related topics and issues, again with self-tests and guidelines for achieving wellness. The text provides comprehensive advice on wellness-related behaviour and practising a healthier way of life, as well as thorough coverage of health-related fitness and nutrition. *Fit & Well* provides the reader with comprehensive advice on making informed choices about food and promotes behavioural change throughout the text. Making informed choices is the *Fit & Well* difference.

Content and Organization of the Fifth Canadian Edition

In the fifth Canadian edition of *Fit & Well*, the organization of the text follows the format of fitness and wellness courses. Instructors do not have to jump around in the text to meet the needs of their course.

Chapter 1 provides an introduction to fitness and wellness and explains the principles of behaviour change. Chapters 2, 3, 4, 5, 6, and 9 focus on the various areas of fitness.

Chapter 2 provides an overview, discussing the components of fitness, the principles of physical training, and the factors involved in designing a well-rounded, personalized exercise program.

Chapter 3 provides basic information on how the cardiorespiratory system functions, how the body produces energy for exercise, and how individuals can

create successful cardiorespiratory fitness programs. Information has also been added to Chapter 3 on the benefits of cardiorespiratory endurance exercise for children and adolescents.

Chapters 4, 5, and 6 look at muscular strength and endurance, flexibility and low-back health, and body composition. Sections include core strength training and the physiology of stretching, with added information on training with and without equipment.

Chapters 7 and 8 explore nutrition and weight management and their impact on the physical dimension of wellness. This edition includes information on alternate diets such as First Nations, Métis, and Inuit, and the Vegetarian Food Guide Pyramid.

Chapter 9 “puts it all together,” describing the nature of a complete program that develops all the components of fitness. This chapter also includes complete sample exercise programs.

Chapters 10 and 11 focus on two of the most important reasons for making lifestyle changes: cardiovascular disease and cancer. Students learn the basic mechanisms of these diseases, how they are related to lifestyle, and what individuals can do to prevent them.

Chapter 12 discusses stress and its relationship to disease. The chapter also describes ways to manage your stress to reduce your risk for those disease processes.

Finally, Chapter 13 looks at additional wellness topics such as aging, the health care system, and environmental health before finishing with a reminder about wellness for life.

Chapter 14 Substance Use and Misuse, and Chapter 15 Sexually Transmitted Infections (STIs) are now found online.

There are some significant changes to this fifth edition. For example, a revamped **Strengthening Mental Wellness** box has been included in many

chapters. This box aims to incorporate information and tips on challenging the mental wellness dimension in each chapter topic. In addition, chapters now include **new and up-to-date photos** that better depict activities for areas such as flexibility and muscle training.

The fifth Canadian edition of *Fit & Well* has also been completely revised to include updated Canadian

examples, references, data, and statistics. Coverage of the latest version of Canada's Food Guide has been included, along with information from Canada's Physical Activity Guide, the Canadian Society for Exercise Physiologists, and the Canadian Association for Health, Physical Education, Recreation, and Dance (CAHPERD).

Chapter-by-Chapter Changes

Chapter 1, Introduction to Wellness, Fitness, and Lifestyle Management

- Discussions of dimensions of wellness are expanded to include cultural and occupational wellness.
- The discussions of the National Wellness Goals are refined to focus on the newest round of initiatives to tackle obesity in Canada.
- All of the chapter's considerable statistical material is updated to reflect the latest information on causes of death, life expectancy, and measures of quality of life.

Chapter 2, Basic Principles of Physical Fitness

- Includes the most recent statistics available from Statistics Canada and the Physical Activity Monitors on the physical activity and exercise habits of Canadians.
- A new Fitness Tip on progressive overload is provided.

Chapter 3, Cardiorespiratory Endurance

- A **Take Charge** feature discusses high-intensity training programs.
- Updated coverage of warm-up and cool-down, high-intensity interval training, and cross-training is included.

Chapter 4, Muscular Strength and Endurance

- Discusses the many ways to develop muscular strength and endurance without going to the gym and includes a bank of photos to help students carry out these exercises.
- Expanded information is provided on the use of stability balls and core training.

Chapter 5, Flexibility and Low-Back Health

- Includes a new figure illustrating the core musculature.
- A new **Wellness Tip** discusses the benefits of a rehabilitation program after injury or surgery.

Chapter 6, Body Composition

- Includes newly updated statistics from Statistics Canada on the prevalence of overweight and obesity in Canada.
- Introduces a new **Wellness Tip** feature on Type 2 diabetes.
- A number of new **Strengthening Mental Wellness** boxes are provided in this chapter.

Chapter 7, Nutrition

- The entire chapter has been updated, where applicable, to discuss the Food and Nutrition Board and Health Canada's Guidelines for Canadians.
- A new **Wellness Tip** helps students understand the potential for low fat foods to be unhealthy.
- Health Canada recommendations for fish consumption are provided.

Chapter 8, Weight Management

- Reiterates the latest statistics on overweight and obesity in Canada, and discusses the health implications of overweight and obesity.
- Challenges students to examine their own weight, think of reasons they may have gained weight, and list ways they can begin reducing their weight right away.
- A new **In Focus** feature about nutritional and workout supplementation helps inform decision-making.

Chapter 9, Putting Together a Complete Fitness Program

- A new Evidence for Exercise feature on the importance of reducing sedentary time is included.
- Provides updated coverage of apps for tracking and motivation during a fitness program.

Chapter 10, Cardiovascular Health

- Updated statistics on incidence, prevalence, and deaths reflect the latest available data.
- Updated information on CVD prevention strategies, metabolic syndrome, and drugs and CVD risk factors is included.

Chapter 11, Cancer

- Includes updated statistics on new cases and deaths from the major forms of cancer.
- A new section on detecting and treating cancer informs students about these important aspects of the disease.

Chapter 12, Stress

- Includes updated statistics on stress and stress management techniques.
- New sections on Type D personality and an enhanced discussion of how gender influences stress are provided.

Chapter 13, Wellness for Life

- Updated statistics in this chapter reflect current information.

- Emphasizes the concept of sustainability, including sustainable energy and sustainable development, and the potential positive impact of sustainable practices on the environment.
- Includes an expanded discussion related to air quality and smog, the greenhouse effect, and global warming.

Chapter 14, Substance Use and Misuse (available on connect)

- Includes updated statistics on alcohol use and abuse based on the latest data from sources such as Health Canada and the Canadian Addictions Survey.
- Statistics on alcohol-related accidents, injuries, deaths, and arrests are updated.
- Statistics on tobacco use are updated based on the latest data from the Canadian Community Health Survey and Health Canada.

Chapter 15, Sexually Transmitted Infections (STIs) (available on connect)

- Statistics throughout the chapter are updated to reflect the latest available information from sources such as the Public Health Agency of Canada, the World Health Organization, and the Canadian Public Health Association.
- New information on HIV testing and HPV vaccination is included.

Key Features and Learning Aids

The *Fit & Well* learning system continues to provide the information students need to start their journey to fitness and wellness. *Fit & Well's* authoritative, science-based information is written by experts who work and teach in the field of exercise science, physical education, and health education. *Fit & Well* provides accurate, reliable, and current information on key health and fitness topics, while also addressing issues related to mind-body health, research, diversity, gender, and consumer health. Text features and interactive activities include self-assessments and fitness labs, a daily fitness and nutrition log, sample programs, and a wealth of behaviour change tools and tips. If marked in the Table of Contents, additional content for box features can be found on Connect.

Critical Consumer boxes help students navigate the numerous and diverse set of health-related products currently available.



Diversity Matters boxes address the ways in which our personal backgrounds influence our health strengths, risks, and behaviours.



The Evidence for Exercise boxes demonstrate that physical activity and exercise recommendations are based on solid scientific evidence.



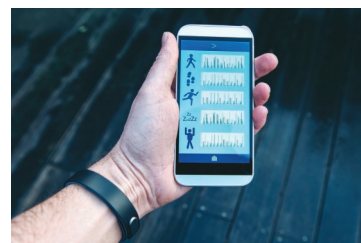
In Focus boxes explore current trends and topics in fitness and wellness, such as high-intensity training and exercising with kettlebells, stability balls, and medicine balls.



Take Charge boxes distill from the text the practical advice students need to apply information to their own lives.



Wellness in the Digital Age boxes focus on the many new fitness and wellness-related devices and applications that are available every day.



Learning Objectives

Each chapter begins with a list of **Learning Objectives** that preview the main points of the chapter.

LEARNING OBJECTIVES

After reading this chapter, you should be able to

- LO1** Describe the basic physiology of muscles and explain how strength training affects muscles
- LO2** Define muscular strength and endurance, and describe how they relate to wellness.
- LO3** Assess muscular strength and endurance

Test Your Knowledge

Each chapter opens with **Test Your Knowledge**—a series of three multiple choice and true-false questions, with answers. These self-quizzes facilitate learning by emphasizing key points, highlighting common misconceptions, and sparking debate.

TEST YOUR KNOWLEDGE

1. For women, weight training typically results in which of the following?
 - a. bulky muscles
 - b. significant increases in body weight
 - c. improved body image
2. To maximize strength gains, it is a good idea to hold your breath as you lift a weight.
True or false?

Ask Yourself

Ask Yourself questions help students retain what they've learned in each chapter by applying and examining the concepts.

Ask Yourself

QUESTIONS FOR CRITICAL THINKING AND REFLECTION

Do you think athletes should be allowed to use drugs and supplements to improve their sports performance? Would you be tempted to use a banned performance-enhancing drug if you thought you could get away with it? Why or why not?



Fitness and Wellness Tips

Fitness and Wellness Tips catch students' attention and get them thinking—and doing something—about their fitness and wellness.

Fitness Tip

As you create a personalized weight training program, focus on specificity and eliminate training methods that do not help you achieve your goal. Follow a well-designed training program that builds strength gradually and progressively. Don't adopt the program of the week just because it's popular.



Wellness Tip

Circuit training involves a series of exercises with minimal rest in between. Circuits can include almost any kind of exercises. Circuit training is an excellent way to develop strength and endurance at the same time.



Strengthening Mental Wellness

The new **Strengthening Mental Wellness** boxes allow students to consider the relationship of their mental dimension with each chapter topic. These boxes serve to reinforce the need to prioritize this dimension whenever possible.

Strengthening Mental Wellness

Another way to contribute toward your behaviour change is to be confident about your ability to create change. Adopt a positive outlook, take pride in your good qualities while recognizing your insecurities, and live in the present. Engage in the process so that you become a participant of change.

Career Options In . . .

Career Options In . . . boxes introduce students to different career paths related to the particular chapter topic.

CAREER OPTIONS IN...



MUSCLE FITNESS

Rehabilitation: kinesiologist, massage therapist, soft-tissue specialist

Community: ergonomist/equipment designer, strength coach, fitness consultant

Vital Statistics

Vital Statistics tables and figures highlight issues such as the leading causes of death in Canada and the factors that play a part in each one; the relationship between lifestyle and quality of life; public health achievements of the twentieth century; the most popular fitness activities; the effects of binge drinking on college and university students; and a wealth of other information. For students who learn best when material is displayed graphically or numerically, Vital Statistics tables and figures offer a way to grasp information quickly and directly.

TABLE 1.2

Leading Causes of Death Among Canadians Aged 1 to 24 years, 2013

Rank	Cause of Death	Percentage (of 2622 total deaths)
1	Accidents	36
2	Suicide	16
3	Cancer	11

Glossary

Within each eBook chapter, important terms appear as pop-tip annotations, helping students handle new vocabulary. In the print edition text, important terms are defined in a **running glossary**.

slow-twitch fibres Red muscle fibres that are fatigue-resistant but have a slow contraction speed and a lower capacity for tension; usually recruited for endurance activities.

fast-twitch fibres White muscle fibres that contract rapidly and forcefully but fatigue quickly; usually recruited for actions requiring strength and power.


intermediate fibres A muscle fibre that responds somewhere in between the speed, endurance, and contractile force of slow- and fast-twitch fibres.

Illustrated Exercise Sections

To ensure students understand how to perform important exercises and stretches, the fifth Canadian edition of *Fit & Well* includes three **illustrated exercise sections**, one in Chapter 4 and two in Chapter 5. The section

in Chapter 4 covers exercises for developing muscular strength and endurance, as performed with your body weight, with free weights, and using weight machines. One section in Chapter 5 presents stretches for flexibility, and the other presents exercises to stretch and strengthen the lower back. Each exercise is illustrated with one or more full-colour photographs showing proper technique. Digital video clips of the exercises from the text and key lab activities are available online.

Weight Training Exercises: Body Weight

 **Exercise 1**

Air Squats

Instructions:

(photo a) Keep your back straight and head level; stand with feet slightly more than shoulder-width apart and toes pointed slightly outward.

Sample Programs


To help students get started, Chapter 9 offers four complete **sample programs** designed to develop overall fitness. The programs are built around four popular activities: walking/jogging/running, bicycling, swimming, and rowing machine. They include strength training and stretching exercises. Each program includes detailed information about technique and guidelines for using equipment; target intensity, duration, and frequency; record keeping; and adjustments to make as fitness improves. The chapter also includes general guidelines for putting together a personal fitness program: setting goals; selecting activities; setting targets for intensity, duration, and frequency; maintaining a commitment; and recording and assessing progress.

SAMPLE PROGRAMS FOR POPULAR ACTIVITIES

The following sections present sample programs based on different types of cardiorespiratory activities—walking/jogging/running and calisthenics circuit training. Each sample program includes regular cardiorespiratory endurance exercise, resistance training, and stretching. Read the descriptions of the programs you're considering, and decide which will work best for you based on your present routine, the potential for enjoyment, and adaptability to your lifestyle. If you choose one of these programs, complete the personal fitness program plan in Lab 9.1, just as if you had created a program from scratch.

Tips for Today and the Future

Chapter-ending **Tips for Today and the Future** sections provide a very brief distillation of the major message of each chapter, followed by suggestions for a few simple things that students can try right away and in the near future. Tips for Today and the Future are designed to encourage students and to build their confidence by giving them easy steps they can take immediately and in the next few days and weeks to improve their wellness.

Tips for Today and the Future 

You don't need a complicated or heavy training program to improve strength: Just one set of 8 to 12 repetitions of 8 to 10 exercises, done 2 to 4 days per week, is enough for general fitness.

RIGHT NOW YOU CAN

- Do a set of static (isometric) exercises. If you're sitting, try tightening your abdominal muscles as you press your lower back into the seat or work your arms by placing the palms of your hands on top of your thighs and pressing down. Hold the contraction for 6 seconds and do 5 to 10 repetitions; don't hold your breath.
- Think of three things you've done in the past 24 hours that would have been easier or more enjoyable if you increased your level of muscular strength and endurance. Visualize improvements in your quality of life that could come from increased muscular strength and endurance.

Common Questions Answered

Sections called **Common Questions Answered** appear at the end of most of the chapters. In these student-friendly sections, the answers to frequently asked questions are presented in easy-to-understand terms. Included are such questions as these: “Do I need more protein in my diet when I train with weights?” “How can I safely increase exercise intensity to build fitness?” “Can physical training limit flexibility?” and “How can I tell if I’m allergic to a food?”

Common Questions ANSWERED

Q I have asthma. Is it OK for me to start an exercise program?

A Probably, but you should see your doctor before you start exercising, especially if you have been sedentary up to this point. Your personal physician can advise you on the type of exercise program that is best for you given the severity of your condition, and how to avoid suffering exercise-related asthma attacks.

Q What should my fitness goals be?

A Begin by thinking about your general overall goals—the benefits you want to obtain by increasing your activity level and/or beginning a formal exercise program. Examples of long-term goals include reducing your risk of chronic diseases, increasing your energy level, and maintaining a healthy body weight.

Chapter Summaries

Chapter summaries offer students a concise review and a way to make sure they have grasped the most important concepts in the chapter.

SUMMARY

- Hypertrophy, or increased muscle fibre size, occurs when weight training causes the number of myofibrils to increase; total muscle size thereby increases. Strength also increases through muscle learning. Most women do not develop large muscles from weight training.
- Improvements in muscular strength and endurance lead to enhanced physical performance, protection against injury, improved body composition, better self-image, improved muscle and bone health with aging, reduced risk of chronic disease, and decreased risk of premature death.

For Further Exploration

End-of-chapter **For Further Exploration** sections offer suggestions for student resources that can be found online to build fitness and wellness.

FOR FURTHER EXPLORATION

Organizations and Websites

Canada's Physical Activity Guide. Offers many suggestions for incorporating physical activity into everyday life.

<http://www.phac-aspc.gc.ca/pau-uap/paguide/>

Hands-on Laboratory Activities

To help students apply the principles of fitness and wellness to their own lives, *Fit & Well* includes **laboratory activities** for classroom use. These hands-on activities give students the opportunity to assess their current level of fitness and wellness, to create plans for changing their lifestyle to reach wellness, and to monitor their progress. They can assess their daily physical activity, for example, or their level of cardiorespiratory endurance; they can design a program to improve muscular strength or meet weight-loss goals; and they can explore their risk of developing cardiovascular disease or cancer. Many labs end with a section labelled “Using Your Results,” which guides students in evaluating their scores, setting goals for change, and moving forward. Labs are found at the end of each chapter and are also available in an interactive format online.

Quick-Reference Appendices

Included at the end of the book are two appendices containing vital information in an easy-to-use format.

Appendix A, Nutritional Content of Popular Food Items, provides students with a link to assess their nutritional intake with Health Canada’s Canadian Nutrient File. This appendix also lists some common fast food restaurant URLs for students to access nutrition guides.

Appendix B, Monitoring Your Progress, is a log that enables students to record and summarize the results of the assessment tests they complete as part of the laboratory activities. With space for preprogram and post-program assessment results, the log provides an easy way to track the progress of a behaviour change program.

Behaviour Change Workbook (Available on connect)

The **Behaviour Change Workbook** contains 15 separate activities that complement the lifestyle management model presented in Chapter 1. The workbook guides students in developing a successful program by walking them through each of the steps of behaviour change—from choosing a target behaviour to completing and signing an agreement. It also includes activities to help students overcome common obstacles to behaviour change.

Teaching and Learning Tools



Learn without Limits

McGraw-Hill Connect® is an award-winning digital teaching and learning platform that gives students the means to better connect with their coursework, with their instructors, and with the important concepts that they will need to know for success now and in the future. With Connect, instructors can take advantage of McGraw-Hill Education's trusted content to seamlessly deliver assignments, quizzes, and tests online. McGraw-Hill Connect is a learning platform that continually adapts to each student, delivering precisely what they need, when they need it, so class time is more engaging and effective. Connect makes teaching and learning personal, easy, and proven.

Connect Key Features:

SmartBook®

As the first and only adaptive reading experience, SmartBook is changing the way students read and learn. SmartBook creates a personalized reading experience by highlighting the most important concepts a student needs to learn at that moment in time. While engaging with SmartBook, the reading experience continuously adapts by highlighting content based on what each student knows and doesn't know. This ensures that the student is focused on the content needed to close specific knowledge gaps, while simultaneously promoting long-term learning.

Connect Insight®

Connect Insight is Connect's new one-of-a-kind visual analytics dashboard—now available for instructors—that provides at-a-glance information regarding student performance, which is immediately actionable. By presenting assignment, assessment, and topical performance results together with a time metric that is easily visible for aggregate or

individual results, Connect Insight gives instructors the ability to take a just-in-time approach to teaching and learning, which was never before available. Connect Insight presents data that helps instructors improve class performance in a way that is efficient and effective.

Simple Assignment Management

With Connect, creating assignments is easier than ever, so instructors can spend more time teaching and less time managing.

- Assign SmartBook learning modules.
- Edit existing questions and create their own questions.
- Draw from a variety of text specific questions, assignable videos, resources, and test bank material to assign online.
- Streamline lesson planning, student progress reporting, and assignment grading to make classroom management more efficient than ever.

Smart Grading

When it comes to studying, time is precious. Connect helps students learn more efficiently by providing feedback and practice material when they need it, where they need it.

- Automatically score assignments, giving students immediate feedback on their work and comparisons with correct answers.
- Access and review each response; manually change grades or leave comments for students to review.
- Track individual student performance—by question, assignment or in relation to the class overall—with detailed grade reports.
- Reinforce classroom concepts with practice tests and instant quizzes.
- Integrate grade reports easily with Learning Management Systems including Blackboard, D2L, and Moodle.

Mobile Access

Connect makes it easy for students to read and learn using their smartphones and tablets. With the mobile app, students can study on the go – including reading and listening using the audio functionality – without constant need for internet access.

Instructor Library

The Connect Instructor Library is a repository for additional resources to improve student engagement in and out of the class. It provides all the critical resources instructors need to build their course.

- Access Instructor resources.
- View assignments and resources created for past sections.
- Post your own resources for students to use.

Instructor Resources

- *Instructor's Manual*
- *Computerized Test Bank*
- *Microsoft® PowerPoint® Slides*

Superior Learning Solutions and Support

The McGraw-Hill Education team is ready to help instructors assess and integrate any of our products, technology, and services into your course for optimal teaching and learning performance. Whether it's helping your students improve their grades, or putting your entire course online, the McGraw-Hill Education team is here to help you do it. Contact your Learning Solutions Consultant today to learn how to maximize all of McGraw-Hill Education's resources.

For more information, please visit us online: <http://www.mheducation.ca/he/solutions>

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Ilsa E. Wong
University of Lethbridge

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Introduction to Wellness, Fitness, and Lifestyle Management



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LEARNING OBJECTIVES

After reading this chapter, you should be able to

- LO1** Describe the dimensions of wellness
- LO2** Identify the major health problems in Canada today and discuss their causes
- LO3** Describe the behaviours that are part of a wellness lifestyle
- LO4** List some of the available sources of wellness information and explain how to think critically about them
- LO5** Explain the steps in creating a behaviour management plan to change a wellness-related behaviour

TEST YOUR KNOWLEDGE

- 1. Which of the following lifestyle factors is the leading preventable cause of death for Canadians?**
 - a. excess alcohol consumption
 - b. cigarette smoking
 - c. obesity
- 2. The terms *health* and *wellness* mean the same thing.**

True or false?
- 3. Which of the following health-related issues affects the greatest number of university/college students each year?**
 - a. stress
 - b. colds/flu/sore throat
 - c. sleep problems
 - d. concern for a friend or family member

ANSWERS

- 1. B.** Smoking contributes to more than 37 000 deaths per year; poor diet and inactivity are responsible for about 21 000 deaths; and alcohol contributes to about 4300 deaths.
- 2. FALSE.** Although the words are used interchangeably, they actually have different meanings. The term *health* refers to the overall condition of the body or mind and to the presence or absence of illness or injury. The term *wellness* refers to optimal health and vitality, encompassing all the dimensions of well-being.
- 3. A.** About 27% of university/college students suffer so much stress that it affects their academic performance. High stress levels affect overall health and wellness, making it important to learn effective stress management techniques.

A university/college student sets the following goals:

- join in new social circles and make new friends whenever possible
- exercise every day
- clean up trash and plant trees in blighted neighbourhoods in the community

These goals may differ, but they have one thing in common: each contributes, in its own way, to this student's health and well-being. Not satisfied merely to be free of illness, this student wants more, and has decided to live actively and fully—not just to be healthy, but to pursue a state of overall wellness.

1.1 Wellness: The New Health Goal

Generations of people have viewed health simply as the absence of disease, and that view largely prevails today. The word **health** typically refers to the overall condition of a person's body or mind. **Wellness** expands this idea of health to include our ability to achieve optimal health. Beyond the simple presence or absence of disease, wellness refers to optimal health and vitality—to living life to its fullest. Although we use the words *health* and *wellness* interchangeably, there are two important differences between them:

- Health—or some aspects of it—can be determined or influenced by factors beyond your control, such as your genes, age, and family history. For example, a man with a strong family history of prostate cancer will have a higher-than-average risk for developing prostate cancer.
- Wellness is largely determined by the decisions you make about how you live. That same man can reduce his risk of cancer by eating sensibly, exercising, and having regular screening tests. Even if he develops the disease, he may still rise above its effects to live a rich, meaningful life. This means not only caring for himself physically, but also maintaining a positive outlook, keeping up his relationships with others, challenging himself intellectually, and nurturing other aspects of his life.

health The overall condition of body or mind and the presence or absence of illness or injury.
wellness Optimal health and vitality, encompassing the seven dimensions of well-being.

Enhanced wellness, therefore, involves making conscious decisions to control **risk factors** that contribute to disease or injury. Age and family history are risk factors you cannot control. Behaviours such as choosing not to smoke, exercising, and eating a healthy diet are well within your control.

risk factors Conditions that increase one's chances of disease or injury.

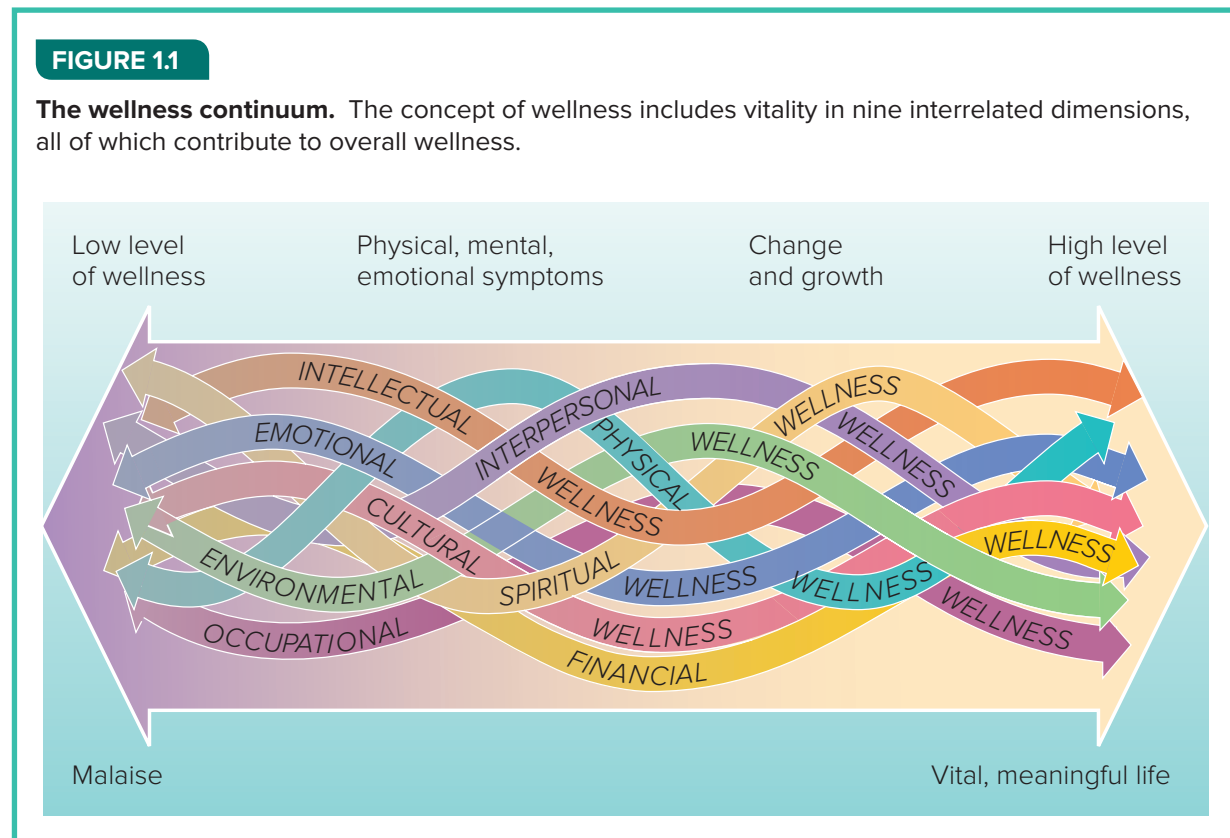
LO1 The Dimensions of Wellness

Here are nine dimensions of wellness:

- physical
- emotional
- intellectual
- interpersonal
- cultural

- spiritual
- environmental
- financial
- occupational

Each dimension of wellness affects the others. Further, the process of achieving wellness is constant and dynamic (Figure 1.1), involving change and growth. Ignoring any dimension of wellness can have harmful effects on your life. The following sections briefly introduce the dimensions of wellness. Figure 1.2 (on the next page) lists some of the specific qualities and behaviours associated with each dimension. Lab 1.1 will help you learn what wellness means to you and where you fall on the wellness continuum.



Physical Wellness

Your physical wellness includes not just your body's overall condition and the absence of disease, but also your fitness level and your ability to care for yourself. The higher your fitness level (which is discussed throughout this book), the higher your level of physical wellness will be. Similarly, as you develop the ability to take care of your own physical needs, you ensure a greater level of physical wellness. To achieve optimum physical wellness, you need to make choices that will help you avoid illnesses and injuries. The decisions you make now, and the habits you develop over your lifetime, will largely determine the length and quality of your life.

FIGURE 1.2

Qualities and behaviours associated with the dimensions of wellness.



Emotional Wellness

Your emotional wellness reflects your ability to understand and deal with your feelings. Emotional wellness involves attending to your own thoughts and feelings, monitoring your reactions, and identifying obstacles to emotional stability. *Self-acceptance* is your personal satisfaction with yourself, which might exclude society's expectations, whereas *self-esteem* relates to the way you think others perceive you. *Self-confidence* can be a part of both acceptance and esteem. Achieving this type of wellness means finding solutions to emotional problems, with professional help if necessary.

Intellectual Wellness

Those who enjoy intellectual (or mental) wellness constantly challenge their minds. An active mind is essential to wellness because it detects problems, finds solutions, and directs behaviour. People who enjoy intellectual wellness never stop learning. They seek out and relish new experiences and challenges.

Interpersonal Wellness

Satisfying and supportive relationships are essential to physical and emotional health. Learning good communication skills, developing the capacity for intimacy, and cultivating a supportive network are all important to interpersonal (or social) wellness. Social wellness requires participating in and contributing to your community and to society.

Wellness Tip

Enhancing one dimension of wellness can have positive effects on others. For example, joining a meditation group can help you enhance your spiritual well-being, but it can also affect the emotional and interpersonal dimensions of wellness by enabling you to meet new people and develop new friendships.



Cultural Wellness

Cultural wellness refers to the way you interact with others who are different from you in terms of ethnicity, religion, gender, sexual orientation, age, and customs (practices). It involves creating relationships with others and suspending judgment of others' behaviour until you have lived with them or “walked in their shoes.” It also includes accepting, valuing, and even celebrating the different cultural ways people interact in the world. The extent to which you maintain and value cultural identities is one measure of cultural wellness.

Spiritual Wellness

To enjoy spiritual health is to possess a set of guiding beliefs, principles, or values that give meaning and purpose to your life, especially in difficult times. The well person uses spirituality to focus on positive aspects of life and to fend off negative feelings such as cynicism, anger, and pessimism. Organized religions help many people develop spiritual health. Religion, however, is not the only source or form of spiritual wellness. Many people find meaning and purpose in their lives on their own—through nature, art, meditation, political action, or good works—or with their loved ones.

Environmental Wellness

Your environmental wellness is defined by the livability of your surroundings. Personal health depends on the health of the planet—from the safety of the food supply to the degree of violence in society. To improve your environmental wellness, you can learn about and protect yourself against hazards in your surroundings and work to make your world a cleaner and safer place.

Financial Wellness

Financial wellness refers to your ability to live within your means and manage your money in a way that gives you peace of mind. It includes balancing your income and expenses, staying out of debt, saving for the future, and understanding your emotions about money. For more on this topic, see the box entitled Financial Wellness on the next page.

Occupational Wellness

Occupational wellness refers to the level of happiness and fulfillment you gain through your work. Although high salaries and prestigious titles are nice, they alone do not bring about occupational wellness. Occupationally well people truly like their work, feel a connection with others in the workplace, and have opportunities to learn and be challenged. Another important aspect of occupational wellness is recognition from managers and colleagues. An ideal job draws on your interests and passions, as well as your vocational or professional skills, and allows you to feel that you are contributing to society in your everyday work.

In FOCUS



FINANCIAL WELLNESS

With the news full of stories of home mortgage rates, credit card debt, and personal bankruptcies, it has become painfully clear that many Canadians do not know how to manage their finances. You can avoid stress—and gain financial peace of mind—by developing the skills that contribute to financial wellness.



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Financial wellness means having a healthy relationship with money. It involves knowing how to manage your money, using self-discipline to live within your means, using credit cards wisely, staying out of debt, meeting your financial obligations, having a long-range financial plan, and saving.

Learn to Budget

Although the word *budget* may conjure up thoughts of deprivation, a budget is really just a way of tracking where your money goes and making sure you're spending it on the things that are most important to you. To start one, list your

monthly income and your expenditures. If you aren't sure where you spend your money, track your expenses for a few weeks or a month. Then organize your expenditures into categories, such as housing, food, transportation, entertainment, services, personal care, clothes, books and school supplies, health care, credit card and loan payments, and miscellaneous. Use categories that reflect the way you actually spend your money. Knowing where your money goes is the first step in gaining control of it.

Now total your income and expenditures. Are you taking in more than you spend, or vice versa? Are you surprised by your spending patterns? Use this information to set guidelines and goals for yourself. If your expenses exceed your income, identify ways to make some cuts. For example, instead of paying for cable TV, you can stream news and entertainment shows from the Internet through your television or Blu-ray player. If you have both a cellphone and a land line, consider whether you can give one up. If you're spending money on movies and restaurants, consider less expensive options like having a weekly game night with friends or organizing an occasional potluck dinner.

Be realistic about what you can cut, but also realize that you may have to adjust your mindset about what you can afford. Once you have a balance between income and expenses, don't stop there. Try to have a little left over each month for an emergency fund or savings. You may be surprised by how much peace of mind you can gain by living within your means!

Be Wary of Credit Cards

One recent financial study found that 58% of Canada's post-secondary students aged 18 to 24 are worried about money. Sixty-four percent of the students surveyed expect to graduate with debt, and one quarter of them expected to owe in excess of \$25 000 upon graduation. Yet 47% of the students surveyed said the most convenient way to pay for day-to-day expenses is with a credit card.

The best way to avoid credit card debt is to have just one card, to use it only when necessary, and to pay off the entire balance every month. Make sure you understand terms like *APR* (annual percentage rate—the interest you're charged on your balance), *credit limit* (the maximum amount

you can borrow at any one time), *minimum monthly payment* (the smallest payment your creditor will accept each month), *grace period* (the number of days you have to pay your bill before interest, late fees, or other penalties are charged), and *over-the-limit* and *late fees* (the amount you'll be charged if your payment is late or you go over your credit limit). Banks make most of their money from fees. Read the fine print!

To see what you really do or don't know about credit cards, take the credit card quiz at <http://www.fcac-acfc.gc.ca/eng/resources/toolCalculator/CreditCard/quiz/CreditCardQuiz-eng.asp?sn=0>.

Get Out of Debt

If you do have credit card debt, stop using your cards and start paying them off. If you can't pay the whole balance, at least try to pay more than the minimum payment each month. It can take a very long time to pay off a loan by making only the minimum payments. For example, to pay off a credit card balance of \$2000 at 10% interest with monthly payments of \$20 would take 203 months—17 years. To see for yourself, check out an online credit card payment calculator tool like <http://www.fcac-acfc.gc.ca/Eng/resources/toolsCalculators/Pages/CreditCa-OutilsIn.aspx>. And remember: By carrying a balance and incurring finance charges, you are also paying back much more than your initial loan.

Become Financially Literate

Although modern life requires financial literacy—which includes everything from basics like balancing a chequebook to more sophisticated endeavours like developing a long-term financial plan—most Canadians have not received any kind of education in financial skills. The consensus is that developing lifelong financial skills should begin in early adulthood, during the university/college years, if not earlier.

If you want to improve your financial literacy, a good way to start is to take a course in personal finance or financial management skills. There are also many magazines that focus on money management, and of course a wealth of information can be found online. Make it a priority to achieve financial wellness, and start now. Money may not buy you love, but having control over your money can buy you a lot of peace of mind.

SOURCES: Financial Consumer Agency of Canada (2017). *Tools, calculators, and educational programs* (<https://www.canada.ca/en/services/finance/tools.html>); Smith, C. & Barboza, G.A.. 2013. The role of trans-generational financial knowledge and self-reported financial literacy on borrowing practices and debt accumulation of college students. *Social Science Electronic Publishing, Inc.* (<http://ssrn.com/abstract=2342168>); Plymouth State University. *Student Monetary Awareness and Responsibility Today!* (<http://www.plymouth.edu/office/financial-aid/smart/>).

LO2 New Opportunities for Taking Charge

A century ago, people considered themselves lucky just to survive to adulthood (see Figure 1.3 on the next page). A child born in the early 1900s, for example, could expect to live only about 57 years. Many people died as a result of common **infectious diseases** (e.g., pneumonia, tuberculosis, diarrhea) and poor environmental conditions (e.g., unrefrigerated food, poor sanitation, air and water pollution).

infectious diseases Diseases that can spread from one person to another; caused by microorganisms such as bacteria and viruses.

Life expectancy has gradually increased since the 1900s, and as of 2017, the average Canadian's life expectancy was 82.2 years. This increase is due largely to the development of vaccines and antibiotics to prevent