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The Women's Movement: Focus on Women's Health

An Active Approach to Fibromyalgia

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What Is Fibromyalgia?

Approximately 900,000 Canadians face the challenges of fibromyalgia each day (Arthritis Society, 2001). Fibromyalgia, a condition of widespread muscle, ligament, and tendon pain, mostly afflicts women over 50. The cause of this disease is currently unknown.

Fibromyalgia is difficult to manage as muscle pain causes sleep difficulties, leading to fatigue during the day. Other symptoms include

- soft-tissue swelling;
- cognitive difficulties;
- trigger-point pain;
- muscle stiffness and weakness;
- sensitivities to cold, certain foods, medications, and allergens.

"The evidence shows that moderate physical activity can interrupt the chronic cycle of muscle tension and fatigue."
—Chris Carruthers

This syndrome can also include depression, tension and migraine headaches, and bowel and bladder irritability.

Fibromyalgia and Physical Activity

Many people with fibromyalgia are anxious about physical activity because they are already in pain. For this reason, they may not have tried physical activity or may have tried various activities and had poor results from performing them incorrectly. This decreased activity causes further muscle weakness, making movement even more difficult. Left unmanaged, the

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stress and anxiety resulting from being less able to cope with daily activities may lead to a further downward cycle.

An "integrative health" approach that combines conventional and alternative therapies and focuses on total well-being may be helpful to people suffering from fibromyalgia. Although we need more clinical studies of complementary and alternative therapies specific to fibromyalgia, preliminary evidence suggests that mind-body therapies such as stress reduction and guided visualizations may provide some relief. Many people respond to stress with muscle tension, which exacerbates neuromuscular pain (Hadhazy, Ezzo, Creamer, & Berman, 2000).

The evidence shows that moderate physical activity can interrupt the chronic cycle of muscle tension and fatigue. In fact, the course of the condition may be more favourable than previously thought. A three-year study of 82 women with fibromyalgia reported that women perceived "physical treatment modalities" (which included exercise, massage, bodywork therapies) as more beneficial than prescribed medications (Poyhia, Da Costa, & Fitzcharles, 2001).

Clearly, movement seems to be the key to managing chronic pain. The American College of Sports Medicine (ACSM) has recommended the following physical activity guidelines to undo muscular tension due to fibromyalgia (Peterson, 2001).

- Activity should be regular and consistent to maintain benefits.
- Avoid prolonged periods of inactivity. Adjust each session based on how you feel that day.
- Start slowly and sensibly. Even a session of five minutes is beneficial. Gradually aim for 30 minutes, four times per week.
- Maintain activity at low to moderate levels of intensity. Monitor intensity with the Borg Rating of Perceived Exertion (RPE) scale. (The RPE is a 15-category scale designed to assess perceptual effort during activity (Borg, 1982).) Because heart-rate measures may not reflect your symptoms on a particular day, you can monitor your exercise intensity by working at a "fairly light" or "somewhat hard" level.
- Vary the kinds of activity in order to avoid repetition and strain on the same muscles and joints. Remember that muscles are delicate and sensitive.
- Use very light weights when resistance training. Avoid rapid or jerky movements.
- Include gentle stretching in the activity program. When muscles are not used, they shorten, stiffen, and progressively lose the ability to function.
- Remember that the purpose of an activity program is to promote health and comfort. The activity program should be considered "active relaxation."

One Woman's Experience

Sarah, 57, has had fibromyalgia for 15 years. "Sometimes it is so painful, I feel as if I go into reverse," she says. "I have had to scale down my thinking about what I had hoped to do in my life."

The losses and change in her daily life can sometimes leave her feeling depressed and helpless. But she really benefits from sharing her experience with others who have the illness.

Sarah has found that swimming and water exercises are most enjoyable for her, because the gentle stretching helps relieve her stiffness. T'ai chi is another beneficial activity.

Sarah recommends that people with fibromyalgia open themselves to holistic health options: "You have to do it yourself. No one is going to do your healing for you. I concentrate on doing the best I can, and although FM [fibromyalgia] affects everything in my life, I plan activities that keep me involved and active each day."

References available on request or from the Alberta Centre for Active Living web site at www.centre4activeliving.ca.

Photo from Dare to Age Well *(Health Canada), copyright Minister of Public Works and Government Services, 2001.*

Lifetime Physical Activity and Breast Cancer Risk

Christine Friedenreich, PhD, Research Scientist, CIHR New Investigator, Division of Epidemiology, Prevention and Screening, Alberta Cancer Board.

Background

Recent results from an Alberta study demonstrate that lifetime physical activity reduces the risk of breast cancer (Friedenreich, Courneya, & Bryant, 2001a and b; Friedenreich, Bryant, & Courneya, 2001). Previous studies have found that women who are more physically active have a reduced risk of developing breast cancer (Friedenreich, 2001a). Our recent study also allowed us to look at some remaining questions about this connection.

Specifically, we were interested in understanding how the following affected the risk of breast cancer:

- the type of physical activity (i.e., occupational, household, and recreational);
- the dose (i.e., frequency, intensity, and duration) of activity; and
- when in life the activity is performed.

In 1998, we designed a new questionnaire that measured total lifetime physical activity, so that some of these knowledge gaps could be filled (Friedenreich, Courneya, & Bryant, 1998).

Besides measuring lifetime physical activity patterns, we also measured many established risk factors for breast cancer (e.g., family history of breast cancer, menstrual and reproductive history, hormone use, and diet and alcohol intake). In total, 1,233 women with breast cancer and 1,237 women who were free of breast cancer (this second group of women were the same age and lived in the same areas of the province as the women with breast cancer) completed a questionnaire. We also used specially designed recall calendars and memory-probing methods to help participants remember their lifetime physical activity patterns.

Several biologic mechanisms may explain how physical activity influences breast cancer risk (Hoffman-Goetz, Apter, & Demark-Wahnefried, 1998). The main theories involve endogenous (or internal) sex and metabolic hormones and obesity and weight gain over a lifetime. Women who are physically active may have less exposure to estrogens during their lives, and be less likely to be overweight after menopause and to gain weight during their lifetimes (Friedenreich, 2001b). Both of these factors are associated with a decreased risk of breast cancer.

"Our study found that women can reduce their risk of breast cancer by modifying their lifestyle and becoming more physically active. This finding is particularly relevant because there are currently few established ways of reducing breast cancer risk among women."
—Christine Friedenreich

What Did We Find?

The post-menopausal women who were the most physically active throughout their lifetimes had a 30% reduced risk of breast cancer, compared with the most sedentary women in the study. We did not find any risk reduction among the most physically active pre-menopausal women. However, the most physically active post-menopausal women who were also non-smokers, non-drinkers, and who had never given birth had even less risk of breast cancer.

The activities most strongly related to a reduced risk of breast cancer were household and occupational activities. The women in this study got most of their total physical activity from occupational and household activities, and less from recreational activities. This finding may explain why there was no evidence for a reduced risk linked to recreational activities.

Activities of moderate intensity reduced the risk of breast cancer more than activities of vigorous intensity. Most women in our study performed light or moderate activities (this may explain the lack of association with breast cancer risk found for vigorous activity). We defined activities of moderate intensity as those causing a slight increase in heart rate and some light sweating.

Women who sustained activity in the highest category throughout their lives, so-called lifelong exercisers, had a 42% decreased risk of breast cancer.

Women who became active only after menopause, or late-life exercisers, had a risk decrease of 40%. Although this risk decrease was not statistically significant, it still indicates a sizeable risk reduction.

What Can Women Do?

Our study found that women can reduce their risk of breast cancer by modifying their lifestyle and becoming more physically active. This finding is particularly relevant because there are currently few established ways of reducing breast cancer risk among women.

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Women who begin moderate physical activity later in life benefit from a reduced risk of breast cancer almost as much as women who are moderately active throughout their entire lives. This "It's never too late to start message!" can encourage both pre-and post-menopausal women to adopt a healthier, more active lifestyle. Our study also showed that sustained, moderate activity is more effective in reducing breast cancer than short, infrequent bouts of vigorous activity. Thus, becoming physically active and reducing breast cancer risk are achievable goals for most women.

Women can reduce their risk of breast cancer by taking a brisk walk for 30–60 minutes on most days (four or more) of the week, along with other daily activities of a moderate intensity (for more information on exercise levels, see *Canada's Physical Activity Guide to Healthy Active Living* at www.paguide.com).

This study confirms that physical activity during a woman's life can both reduce her risk of breast cancer and contribute to the primary prevention of this disease. Since physical activity also reduces the risk of several other chronic diseases, including other cancers, the need to maintain an active lifestyle is an important public health message for women.

For more information about this study or for copies of the research papers, please contact Christine Friedenreich, PhD (chrisf@cancerboard.ab.ca).

References available on request or from the Alberta Centre for Active Living web site at www.centre4activeliving.ca.

A Changed Lifestyle: Older Aboriginal Adults

Lylee Williams, BEd, National Indian and Inuit Community Health Representatives Organization (NIICHRO). This article is reprinted with permission from NIICHRO's *In Touch* (Williams, 2000a). Photos courtesy of NIICHRO.

How It Was

Traditionally, Canadian Aboriginal communities have highly esteemed their ageing members, turning to grandmothers and grandfathers for advice, teaching, and guidance in raising children and maintaining traditional cultural practices. Throughout history, senior members of Aboriginal communities have transmitted ancestral wisdom and played active roles in the everyday life of the community. Seniors' contributions provided both a link to the past and a bridge to the future (Government of Canada, 1996b).

The day-to-day survival of community members depended on everyone's ability to contribute to each family's well-being. Seniors worked side-by-side with children, young people, and other adults to provide food, shelter, clothing, and recreation. In particular, seniors transmitted knowledge about their language, traditional hunting practices, medicinal treatment, and other crucial knowledge. The active contributions of elderly members to a great extent defined the social structure of Aboriginal communities. This role made physical stamina a necessity for Aboriginal seniors (Cyr & McFarlane, 1999, p. 2).

How It Is Now

However, modern ways of life have brought dramatic social changes. Many Aboriginal seniors are no longer considered productive members of their society. Modern conveniences, electronic gadgetry, improved medical treatment, and changing family structures mean that many Aboriginal seniors now have little opportunity to contribute to their own community. The important roles they once played have been replaced or eliminated completely. Now that physical strength is no longer necessary, many seniors face infirmity, diminished physical capacity, and a general decline in their health (Cyr & McFarlane, 1999, p. 2).

Seniors' Health and Physical Activity

Chronic disease in Aboriginal communities is increasing: "the prevalence of five conditions: diabetes, cancer, heart disease, hypertension and arthritis/rheumatism among First Nations exceeds that of all Canadians

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in all major age-sex groups...of particular interest is diabetes, which is extremely prevalent" (Health Canada & First Nations and Regional Health Survey National Steering Group, 1999, p. 58).

According to Ship and Tarbell (1997, p. 83),

> Such chronic diseases limit activity and in the cases of cardiovascular disease, hypertension, diabetes, and arthritis/rheumatism, prevention and/or control call for the patient to undertake some form of physical activity, reaping physiological benefits that include more efficient blood circulation and breathing, more energy, improved muscle functioning, improved digestion, stronger bones, more supple joints, improved mobility and less chance of falls and accidents.

As well as the physical limitations of chronic diseases, seniors who live in isolation are prone to depression, loneliness, and inactivity of the mind and body that can cause them to withdraw into themselves (Crawford, 1979, p. 83).

An Ageing Population

The number of older Aboriginal adults is increasing. Since 1970, the life expectancy of Aboriginal men and women has increased by ten years (Indian and Northern Affairs, 1995, Table 1, p. 1). The

> number of Aboriginal seniors who identify with their Aboriginal heritage is expected to more than triple, from 23,000 in 1991 to almost 74,000 by 2016, with the largest increases being expected among registered Indians and Métis living in urban areas, while the smallest increase is anticipated among registered Indians in rural areas (CMHC, 1996, p. 22).

Changing Family Structures

Traditionally, North American Aboriginal family life has been characterized by the extended family system that included a man and woman, their children, and more distant relations (e.g., grandparents, aunts, and uncles) living together in a mutually supportive environment.

Due to the social and geographical demands of industrial society, the nuclear family is gradually replacing this traditional Aboriginal family life (*The Family*, 1999). As a result, seniors have lost their important role in guiding and bringing up children. At the same time, the mutually supportive environment in which the younger generation looks after the needs of seniors in the same household has also been eroded (Government of Canada, 1996a).

What Do These Changes Mean?

Electricity, running water, and motorized vehicles have led to a sedentary lifestyle. The touch of a dial or the turn of a faucet or ignition key provides instant power, water, and transportation, eliminating the need to chop and haul wood for heat and cooking, carry water, or walk to a destination.

The physical demands of a traditional lifestyle used energy that resulted in a sense of accomplishment at the end of a day. Seniors' roles as partners in the work of the society required them to remain active, teach younger members, and provide essential services to their communities. Active involvement in the life of the community also meant that seniors maintained their health, mental capacity, productivity, and social position as leaders and guides in the areas of spirituality, ethics, and traditional wisdom.

These social changes are not unique to Aboriginal communities, but significantly affect a society that once relied heavily on its senior members to maintain traditional cultural mores, values, and customs.

References available on request or from the Alberta Centre for Active Living web site at www.centre4activeliving.ca.

The Canadian Women's Health Network (CWHN)

Women from over 70 organizations across Canada launched the CWHN in May 1993. The CWHN emerged from the generous dedication of health-care workers, educators, advocates, consumers, and other Canadians committed to sharing information, resources, and strategies to improve women's health.

The CWHN aims to:

- **provide easier access to health information, resources, and research;**
- **produce user-friendly materials and resources;**
- **promote and develop links to information and action networks;**
- **provide a forum for critical debate;**
- **act as a "watchdog" on emerging issues and trends that may affect women's health;**
- **work to change inequitable health policies and practices;**
- **encourage community-based participatory research models;**
- **promote women's involvement in health research.**

Visit the CWHN web site (www.cwhn.ca/indexing.html).

Portrait of an Aboriginal Woman: Mary Wilson

Lylee Williams, BEd, National Indian and Inuit Community Health Representatives Organization (NIICHRO). The following is an excerpt from a recent interview with Mary Wilson, reprinted with permission from NIICHRO's *In Touch* (Williams, 2000b). Photo courtesy of NIICHRO.

In November 2000, Mary Wilson had her 88th birthday. Born in La Riviere, Manitoba, and raised in Winnipeg, her life has revolved around family, education, and her nursing work. Volunteerism comes naturally to her, stemming from strong family values. Her parents taught her to "treat others as equals and always reach out to help other people." She has received many honours, including the International Red Cross Florence Nightingale Medal.

"We can have vision and dreams, but unless we put them into action, we're just treading water and standing still."
—Mary Wilson

Mary continues her active life today. For example, she volunteers as a member of the "Spirit in Motion" steering committee and as a representative of the Active Living Coalition for Older Adults.

Mary, tell me about the early years in your family:

I grew up in a family of three girls and a boy. We were three, maybe a year and a half apart. Then along came my youngest sister when I was 16. So, in other words, we were like two families, raising this baby sister. My father died when she was just a few months old, so we accepted the responsibility that here was a sister that was going to grow up...That's the kind of commitment you don't say aloud, but underneath, you have to protect your mother and youngest sister.

Why did you choose nursing as your career?

I guess this stemmed from the church I belonged to. I taught Sunday school and was involved in sports in the community...caring for other people, reaching out to them. In the early 1940s, I attended McGill University in Montreal. Then, in the late 1940s and 1950s, I went to teachers college which was part of Columbia University of New York—Faculty of Nursing...I took my degrees in nursing: a Bachelor's Degree, then a Master's.

What are some of your early experiences as a nurse?

During the Depression, I worked in an outpatient department at a starting salary of $15.00 per month...the patients who came into the hospital started out needing medical attention but later on, you found out that they had other kinds of needs. It took a lot of reaching out and caring. Then, I worked at the Manitoba Tuberculosis Sanitarium and later at the Margaret Scott Nursing Mission where I gained experience in home delivery of babies. There were so many babies, I haven't kept count.

I worked in the Inter-Lake area in a multicultural area close to the reserves. So, it was a mixture of people and I gained a lot of experience and feeling of cultural values. When I was around 30 years old, my services were loaned to the Federal Department of Indian Health Services to take part in a research project and so I worked and lived on an Indian reserve in Manitoba for three years.

Tell me more about this research project:

The project was focusing on sun and snow blindness and conditions related to lack of vitamins...Northern Indian reserves provided our study group and control group for the research: Norway House, Island Lake, Cross Lake, and Oxford House. Our research team was made up of experts in medicine, ophthalmology, pediatrics, and research photography. Before joining the research team, I consulted with my mother because of having been away from home more than a year. She told me, "I know where you're going to be. Opportunity only knocks once. You go with my blessings." So, off I went and that's where I spent 1942 to 1945, living on the reserve, travelling by canoe, dog team...that was the mode of transportation.

What was it like for you to live on the reserve?

The people were some of the finest men and women I have ever met. For example, my sister was getting married and my mother and sister wanted me to come down. It was December and how was I going to get there?...a dog team was put together with two men from the reserve to drive. We spent three days travelling because the weather was bad. But, I was treated like a queen. I learned to appreciate boiled tea out of a jam pail made with melted snow and all the pine needles that fell in by accident. Think of herbal tea today.

Do you have some closing words on your work and volunteerism?

I retired from the government when I turned 65. People asked me after I retired, "Did you earn some money?" I have to say I've been a busy retired person, but I never earned money. What I've given has always been on a volunteer basis. So, money is a necessity but it's nothing that matters most in the lives of people. If we can reach out and share and respect our older members of the community, and let them know we respect and love them. These days, I keep active with lots of volunteer work. Being healthy socially, mentally, physically, spiritually. It's all combined. So, Mary Wilson, that's who I am.

Osteoporosis: The Active Factor

Liz Young, RN, Coordinator of TrymGym, Faculty of Kinesiology, University of Calgary (https://dciwasp.admin.ucalgary.ca/webapp/pec_event/).
Photo from *Dare to Age Well* (Health Canada),

Osteoporosis literally means "porous bones." This disease makes bones so fragile that they can fracture under the least pressure. Because this bone loss can occur without symptoms, osteoporosis is often called the "silent thief." Even carrying the body's weight can produce pressure that causes fractures, e.g., in the spine, hips, ribs, and wrists (Osteoporosis Society of Canada, 2002).

A Woman's Disease?

This disease affects 1.4 million Canadians, and many more women than men (one in four women and one in eight men over the age of 50). In fact, more women die each year as a result of osteoporotic fractures than from breast and ovarian cancer combined (Osteoporosis Society of Canada, 2002).

Bone loss is a normal part of ageing that affects both males and females. However, the degree of loss may vary depending on genetics, hormones, and lifestyle. A critical factor in determining the risk of osteoporotic fractures in later years is a woman's bone mass at menopause. The hormonal changes of the female body during menopause radically accelerate the rate of bone loss, predisposing women to an increased risk of osteoporotic fracture.

A sedentary woman can expect to lose between 15 and 25% bone mineral density in the five years following the initial, or irregular menses, stage of menopause. Women will continue to lose about 1–2% bone mineral density per year after that stage. Even a 10% decrease in hip bone mineral

density is associated with a 2.6-fold increase in the risk of osteoporotic fracture (Edwards, 1998).

Active Prevention

Bones reach their full length during the teenage years. Most people reach their peak bone mass by around age 30 (Ho et al., 1997). Several factors determine bone strength, or peak bone mass, including genetic make-up, diet, and physical activity. Eating a healthy and balanced calcium-rich diet that is high in fibre and low in fat is very important in childhood, the teens, and young adult years.

An active lifestyle before bones have finished growing, including weight-bearing and strengthening activities, will help to stimulate bone cells (osteoblasts) to produce the matrix that will keep the skeleton healthy. It is also important to avoid behaviour that increases the risk of osteoporosis, such as smoking, strict dieting, and drinking excessive amounts of alcohol.

The old adage that an ounce of prevention is better than a pound of cure applies to osteoporosis. Taking care of bones is a lifetime affair. Early action can also help prevent fractures of fragile bones in later life by maximizing bone density before the bones have finished growing.

Osteoporosis and Quality of Life

Osteoporosis can significantly affect quality of life. (Cook et al., 1993). Everyday activities, such as taking a shower, preparing meals, walking up stairs, and visiting friends, may be disrupted by injuries to fragile bones (Lips et al., 1999). Many elderly people become housebound because of their fear of fractures. As life expectancy increases (in Canada, the average life expectancy for women is now 81 (Statistics Canada, 2000)), we need to understand that quality of life beyond age 50 demands early attention to osteoporosis prevention.

The Canadian Medical Association recommends physical activity to improve quality of life by increasing strength, coordination, balance, and flexibility (Canadian Medical Association, 1996).

Physical activity can improve posture, lessen pain, and reduce the risk of falls. Adult programs designed to increase strength, improve balance, and change movement strategies may decrease the risk of fall-related fractures (Judge, Lindsey, Underwood, & Winsemius, 1993). Reducing the number of fractures means lowering individual functional and emotional costs and society's medical costs.

A Sample Program

The University of Calgary's TrymGym offers classes for people with osteoporosis. The 12-week program, a collaboration between the faculties of Kinesiology and Fine Arts (Program of Dance), includes one cardiovascular class and one modern dance movement class each week.

Like a regular fitness class, the cardiovascular session includes stretching, weight-bearing, and muscle-strengthening activities, for example,

- a 10-minute warm-up of gentle movement and stretching;
- cardiovascular activity that includes up to 20 minutes of walking and easy-to-follow aerobic routines;
- weight and endurance training (20 minutes of light weight-lifting or activities that use the resistance of the body's own weight);

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- 5–10 minutes of relaxation, including flexibility, range of motion, balance, and stretching activities.

The modern dance class is designed to reduce the risk of falling. We promote fall prevention by combining standing, walking, and floor work. The class also emphasizes improved balance, body self-awareness, core muscle strength, and flexibility.

References available on request or from the Alberta Centre for Active Living web site at www.centre4activeliving.ca.

If you have suggestions or questions, we'd like to hear from you.
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News from the Alberta Centre for Active Living

The Canadian Health Network (www.canadian-health-network.ca/1active_living.html)

CHN is a national, bilingual, and Internet-based service funded by Health Canada. The Alberta Centre for Active Living, in partnership with the Leisure Information Network, manages the Active Living Health Centre of the Canadian Health Network (CHN). There are 26 Health Centres on CHN that feature "health information you can trust."

The CHN Active Living web site includes Canadian and international resources on active living and answers to frequently asked questions. The collection features resources on diabetes and active living, active living for pregnant women, and active living and healthy eating. Resources can be searched by population groups, resource types, and provinces/territories.

As part of the celebration of International Women's Day, CHN produced a special edition on women in March 2002. Included was a poll on active living that asked the question: "What is the number one reason you do physical activity?" (The poll was based on 1,178 submissions.)

The following lists the results (as of March 18, 2002):

- **Control my body weight: 46%**
- **Prevent disease: 30%**
- **Have time for myself: 14%**
- **Eat whatever I want: 3%**
- **Be with friends and family: 3%**

To access this special edition, click on the monthly feature and then select "Archives" to view back issues of magazine features.

Proclamation of World Health Day, April 5, 2002

The Alberta Centre for Active Living partnered with the City of Edmonton to organize a news conference on April 5 to proclaim World Health Day in Edmonton. For more information on World Health Day, visit the World Health Organization web site at www.who.int/world-health-day./

Active Living Coalition for Older Adults (ALCOA) Speakers' Bureau

- **Are you looking for an older adult who can speak to your group about the benefits of physical activity and healthy eating as part of healthy ageing? Contact Jennifer Dechaine (see contact information below for details).**
- **ALCOA and the Alberta Centre for Active Living are providing training sessions for ALCOA speakers. Are you an older adult who is interested in spreading the word about active living for older adults? Then we have an opportunity for you! As an ALCOA speaker, you will talk with various seniors' groups about active living for older adults. You would also spread the word about the importance of physical activity and proper nutrition.**

If you are interested, please contact:
Jennifer Dechaine
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Mission statement of the Alberta Centre for Active Living
Supporting practitioners and organizations to improve the health and quality of life of Albertans through physical activity.