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Spring into Exercise

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People with fibromyalgia, chronic fatigue and/or environmental sensitivities can benefit from gentle, graded, aerobic exercise. Numerous studies demonstrate that exercise must be considered as one aspect of treatment and self-management to achieve optimal function. The key is moderation and pacing.

WHAT IS EXERCISE?

Physical exercise is any body activity that enhances or maintains physical fitness and overall health. This includes strengthening muscles and the cardiovascular system, for weight loss or weight maintenance and for enjoyment. Frequent and regular physical exercise boosts the immune system, and helps prevent disease such as cardiovascular disease. It also improves mental health, helps prevent depression, promotes or maintains a positive self-esteem, and can even augment an individual's sex appeal or body image. (Wikipedia, 2010)

CHOOSING AN EXERCISE

The key to physical exercise is to start slowly with a low impact exercise such as stretching and walking. Watch your symptoms carefully during exercise, and find the level of exertion that's right for you. Your physician or/and physical therapist can guide you.

The most frequently recommended gentle exercises are warm-water exercise, yoga, Tai Chi, and Pilates. Numerous studies have consistently demonstrated that these gentle, aerobic exercises can reduce your pain/stiffness, boost your physical and cognitive function and lessen your anxiety and depression. Movement is essential for your recovery!

1 Stretching and Range of Motion Exercises

Stretching in the morning before you get out of bed is a great way to "wake" up your muscles, decrease stiffness and get them ready for the day. Stretching loosens up your body while increasing blood flow to your muscles. Range of motion exercises help maintain or restore normal joint movement and relieve stiffness.

Click on the links below to learn an easy and effective morning stretch exercise program.
<http://physicaltherapy.about.com/od/flexibilityexercises/ss/MorningStretch.htm>

2 Walking

Walking can increase your function and endorphin levels. Start slowly by walking for 10 minutes and increase walking activity by increments of 5 minutes. Walk only until you start to feel fatigued. If you suffer from environmental sensitivities, you may enjoy walking early in the morning or later in evening when there is less air pollution.

3 Warm water exercise

Warm water exercise is gentle on the body and helps you relax. The buoyancy of the water allows less effort in movement and reduces jarring of your muscles and joints. Water provides resistance to help build strength and develop better balance. If you have symptoms of MCS, you may benefit from warm water exercise in a salt water pool.

4 Tai Chi

Tai Chi is also called "moving meditation." It is a gentle, no-impact form of exercise that relaxes your body and reduces stress. Tai Chi can be a way to get your body moving, increase your energy, and promote flexibility and strength. Start slowly and lengthen your work-out gradually.

5 Yoga

Yoga is a gentle way to stretch your body, loosen up tight muscles and joints, and helps with balance and strength. More advanced yoga can provide a cardiovascular work-out. Some yoga experts claim yoga gives the body more energy than it takes and is an ideal

exercise for fatigue-related conditions. Start yoga slowly and if you are doing a self-guided video or book program, be sure to start with simple poses, lying on the floor.

6 Pilates

If you are active and have minimal stiffness, Pilates can be the next step to improving your strength and overall fitness. Pilates is adaptable to various levels of fitness and offers a gentle, no-impact complete body work-out. It combines stretching and strengthening exercises to tone the body. Start slowly and work-out every few days.

The New You

Gentle exercise may boost your energy and release endorphins in the brain and are great pain killers. Sweating from exercise can be a natural detoxification of the body. Stretching, strengthening and toning of muscles will also can increase your body function

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School Daze: Environmental Sensitivities in Students and Staff

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CHILDREN AND ENVIRONMENTAL SENSITIVITIES

Canadian statistics estimate that approximately 2.4 % of the population over 12 years of age have environmental sensitivities (ES); however the number of affected children under 12 in Canada remains unknown¹. It is known, however, that ES does occur in children.^{2,3} In a U.S. survey on the prevalence of ES, 32.4% of survey participants stated that hypersensitivity to environmental exposures first emerged before they reached 20 years of age.⁴

We also know that children are more vulnerable to the effects of environmental exposures than adults. This is related to:

- Their small size (kilogram for kilogram of body weight, a child will eat more food, drink more water, and breathe more air than will an adult.
- Physiology: children are still developing and the baseline rate of breathing is faster in a child than in an adult.
- Behavior: children often “eat or mouth” objects that adults generally do not ingest (e.g. paint chips), they are closer to the ground where toxic exposures are often more concentrated, and teenagers may be involved in risky behaviours (e.g. graffiti painting), which can expose them to toxins.
- Children have a longer lifetime ahead of them than do adults, which allows more time for exposures to occur and health problems to manifest later in their lifetime.

Some children are more vulnerable than others, particularly, children living in poverty and/or with nutritional deficiencies; children exposed to environmental tobacco smoke and/or toxins brought home from their parents in higher risk occupations (such as farmers exposed to pesticides); and children with genetic variations that may make them more vulnerable to toxic exposures.⁵

SCHOOL ENVIRONMENTS: HEALTHY OR TOXIC?

The school environment (particularly, indoor air) can contribute to ES in children and adults who work in schools (teachers, custodial staff, etc.).^{6,7} In most schools there are exposures to allergens and asthma triggers (for example, dust/dust mites and cleaning products, respectively), which can make some children’s and adult’s allergies, asthma and/or environmental sensitivities worse.

School buildings are often made with inexpensive construction materials and some are in poor repair (budget constraints), both of which contribute to poor indoor air quality and potential toxic exposures. School classrooms usually house approximately four times as many occupants per square metre as do office buildings. This higher occupancy increases need for higher ventilation rates, however, ventilation in many schools may be inadequate. Moreover, some school classrooms, especially “portable” classrooms, may contain mould, which can contribute to children’s and teacher’s allergies, asthma and environmental sensitivities. School supplies can expose children (and adults) to potentially toxic chemicals, e.g. from dry erase makers, art and science supplies.^{7,8,9}

HEALTHIER SCHOOL ENVIRONMENTS

In Canada, the organization, Canadians for a Safe Learning Environment (CASLE), has done exemplary work toward accommodating school children with environmental sensitivities, in addition to educating school boards, teachers, parents and children on ways to create safer and healthier schools (improved indoor and outdoor air quality).

CASLE Executive Director, Karen Robinson, and Nancy Bradshaw (Environmental Health Clinic) developed a new resource, “Accommodating Students and Staff with Environmental Sensitivities,” to help schools make adaptations for students and staff with environmental sensitivities (ES), as well as create healthier schools for ALL students, particularly those with asthma and allergies. The resource will be released on April 27th, to celebrate Canada’s Healthy Schools Day. For more information see www.casle.ca.

Tips for healthier school environments (improved indoor and outdoor air quality)

1. Make your school “scent-smart” by eliminating scented school supplies and restrict the wearing of perfumes, colognes and other scented personal care products in school;
2. Use least toxic cleaning, art and school supplies (www.lesstoxicguide.ca).
3. Reduce contamination from outdoor air by implementing a no-idle vehicle zone around the school.
4. Open windows (at least 2 per classroom) to increase the supply of “fresh” air.
5. Remove all carpeting as soon as possible. Replace with hard surface flooring and use less-toxic glues.
6. Wax or strip floors during evenings, weekends and vacations, but not during class times. Renovations should be scheduled over vacation times. Always use least-toxic products.
7. Make sure storage rooms, technical rooms, photocopy equipment, art rooms, furnace rooms, janitor’s closets, washrooms, change rooms and gym equipment rooms are well vented.
8. Fix problems with ventilation systems and/or water damage immediately.

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6 State of California. *Sustainable Schools: Indoor Environmental Quality*. 05/30/2008. Retrieved April 14, 2010 from <http://www.sustainable-schools.dgs.ca.gov/SustainableSchools/sustainabledesign/ieq/iaq/iaq.html>.

7 Minister of Health. *Indoor Air Quality: Tools for Schools- Action Kit for Canadian Schools*. March 2003. Retrieved April 14, 2010 from http://www.hc-sc.gc.ca/ewh-semt/pubs/air/tools_school-outils_ecoles/index-eng.php.

8 Kids Making a Connection (KMAC), *Health and the Environment*. *Crabby Kathy: A True Story*. 1998. KMAC Kids, Chico, CA. Retrieved April 14, 2010 from <http://kids.niehs.nih.gov/kathy/home.htm>.

9 CASLE. *Characteristics of Schools that can Affect Indoor Environment Quality*. Retrieved April 14, 2010 from <http://www.casle.ca/ArticleDetail/tabid/77/smid/413/ArticleID/44/refTab/56/t/Characteristics-of-Schools/Default.aspx>.

at Women's College Hospital, Toronto, on March 6, 2010. The interest in XMRV was a result of the recently published peer reviewed article in the periodical *Science*. XMRV is a retrovirus like the AIDS virus, made of RNA that can live inside the genes.

The research was done by the Whittemore Peterson Institute in Reno Nevada, the National Cancer Institute, and the Cleveland Clinic in the United States. The results showed that XMRV was found in 68 of 101 (67%) patients' peripheral blood mononuclear cells as compared to 8 of 218 (3.7%) healthy controls. CFS/ME patients were identified using the Fukuda and Canadian definitions. Four unrelated testing methods were used to identify XMRV including: virus isolation, PCR testing, immuno-blot techniques and serological testing.

Previously in 1991 Dr. Elaine DeFreitas reported her research that linked ME/CFS and retroviruses that was ignored by the scientific community. More recently, in 2005, XMRV was found in patients who have prostate cancer.

The recent XMRV findings gave hope to ME/CFS patients around the world – a possible laboratory test on the horizon.

Soon afterwards three other international research teams tested patients and came up empty handed – no virus present. What happened?

Dr. Bell explained that there were a number of factors that could be involved. These differences included:

1. Different patient populations identified by using different ME/CFS definitions and criteria.
2. Different laboratory techniques were used. The other researchers did not use: identical techniques to grow the virus, identical techniques to isolate the virus, identical types of specimens from which to sample the virus, identical control samples and patient blood samples were not processed in an identical manners.

To me it was like comparing apples and oranges; they are both fruits. But I wouldn't expect to find oranges growing in an apple orchard.

Dr. Bell and I think the research must be repeated in exactly the same way: using the same criteria to identify the same patient population and using exactly the same testing methods on those patients' blood. Let's compare apples to apples. Let's repeat the 3 research studies again using exactly the same patient population sampling and methodology.

It is also possible that one virus type is not responsible for the development of ME/CFS in all patients. There could be other viruses playing a role in the ME/CFS around the world.

Today, let's rejoice that research is being done on patients with ME/CFS and that new technologies are being developed to sort out this problem.

Dr. Bell informed me that other centres using exactly the same types of patient populations and methods would repeat this research.

It would be wonderful if the results were similar to the previous positive results. Then more research would be done and treatment protocols would be developed looking at the retroviral drugs. If not, scientists will learn from this and new research will be done. Remember, it took Thomas Edison 100 attempts to create a light bulb.

In the meantime what have we learned? For the first time ME/CFS is being treated as an organic/physical illness by the scientific community. ME/CFS has been identified as post viral in origin.

As a result, the Canadian Blood Services is recommending that people with ME/CFS not donate their blood for human use – even if they have fully recovered because XMRV can live inside the genes for the rest of your life in an inactive or latent form. ME/CFS patients also should not become organ donors.

Reference: Lombardi, V.C. et al, Detection of an infectious retrovirus, XMRV, in blood cells of patients with Chronic Fatigue Syndrome, Science; 23 October 2009: Vol. 326. No. 5952, pp. 585 – 589.



Retrovirus XMRV and Myalgic Encephalomyelitis/Chronic fatigue Syndrome

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The Myalgic Encephalomyelitis Association of Ontario (MEAO) and the Environmental Health Clinic invited Dr. David Bell to lecture about the Xenotropic Murine Leukemia-related Virus (XMRV)



WHAT'S ON!

ME/CFS/FM Awareness Day May 12, 2010 at noon.

Join the MEAO and other health advocates on the front lawn of Queen's Park, Toronto.

***Listen to Speakers, Promote Awareness,
Let Your Voices Be Heard at All Levels of Government!***

Women's College Hospital will also have a display in the front lobby to celebrate ME/CFS/FM Awareness Day.

Standard for Built Environment

Last summer, the Accessibility for Ontarians with Disabilities (AODA) released their first draft Standard for the Built Environment for public comment. The Standard improves access to buildings for people with disabilities. More specifically, a new Air Quality standard was developed for people with environmental sensitivities—and lauded by the Ontario Human Rights Commission.

Close to 500 members of the public made comments on the draft Standard. The committee is now reviewing the comments and will be voting on the revisions over the next few months. For more information, go to

<http://www.ohrc.on.ca/en/resources/news/builtenviro/view>

For the draft Standard, see

http://www.opsba.org/files/AODA_BuiltEnvironmentPlainLanguageForPublicReview.pdf

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