

## Sports medicine

*Not "just for jocks" any more*

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In the past, sports medicine has been thought of as a bit of a luxury, existing solely for the benefit of competitive elite athletes and exercise fanatics, and not easily accessible for the average person. As evidenced by the articles in this issue, however, knowledge in this area is a bona fide and necessary part of family medicine as well. Sports medicine has migrated into the mainstream, cutting a broad swath, crossing and encompassing many different disciplines, such as family medicine, orthopedics, exercise science, cardiology, neurology, pediatrics, and emergency medicine.

Many primary care sports medicine physicians in Canada and the United States take specialized fellowship training programs of 1 to 3 years and pass standardized examinations. New Zealand and Australia have similar training criteria, as do many European nations. Practitioners can enter these programs via many routes, including other specialties, such as internal medicine, pediatrics, emergency medicine, physical medicine, and rehabilitation, but most will pursue this training following family medicine residency or after some years of independent practice. Orthopedic medicine has its own subspecialty sports medicine fellowships and examinations.

What is the role primary care sports medicine physicians play? As consultants, they can be of immense help in assessing and treating active patients by bridging the gap between family physicians and orthopedic surgeons. In these times of long waiting lists, shortages of specialists, and escalating health care costs, patients with musculoskeletal problems can be seen quickly and cost-effectively. Quite often, appropriate management with physiotherapy, bracing, orthotics, injections, and so on can eliminate the need for further consultation. For acute injuries, such as ankle sprains and knee ligament injuries, primary care sports medicine physicians can facilitate early diagnosis and management, thereby speeding recovery and preventing long-term disability. Some sports medicine physicians specialize in industrial, or workplace, medicine, while others develop special interests, such as treating musicians and performing artists. In short, they are a valuable resource and should be recognized and used as such.

### Implications for family physicians

What are the implications of sports medicine for practising family physicians? As Dr Shrier mentions (page 727), studies have shown that musculoskeletal injuries

are the cause of up to 15% of all office visits, and some estimates would give an even higher number. Many family physicians also cover shifts in emergency departments, where acute injuries make up a substantial portion of patient encounters, particularly among pediatric and adolescent populations.

There is clearly a role for sports medicine knowledge in the comprehensive care of patients "from cradle to grave." Which family physician has not been asked by a pregnant patient what amount of exercise is safe during pregnancy and the postpartum period? Or who has not heard questions like, "When can children pursue serious weight training?" and "Should they be allowed to run marathons and participate in other endurance events?"

How about the child who is too tired to participate in school sports? Could the fatigue and lack of fitness actually be due to undiagnosed exercise-induced asthma? How familiar are you with the benefits of exercise for building and maintaining optimal bone strength? It is just as critical in younger patients as it is in postmenopausal women for whom you might be considering hormone replacement therapy. What are your opinions on the use of drugs and sport—could you converse knowledgeably about the health risks of steroids in professional baseball? What about little Johnny, who comes in with his second or third concussion during his season of minor hockey? How will you advise him and monitor his safe return to play?

In general, people are living longer and have more leisure time. Scores of older adults with osteoarthritic joints either want advice on how to become more active or wish to get back to their previous activities. They are usually extremely motivated to attend physiotherapy and comply with treatment programs. It is every bit as gratifying to help these patients as it is to deal with elite athletes. The risks associated with using such medications as nonsteroidal anti-inflammatory drugs are substantial in these older people, who often have concomitant diseases. Viscosupplementation is an excellent adjuvant therapy. Family physicians who are familiar with these agents and are comfortable injecting joints, can offer a tremendous service to this group of patients.

It is also critical that family physicians encourage physical activity for health promotion and disease prevention. With television, video games, and the Internet, children have become increasingly inactive. In addition, the lack of daily high-quality physical education in

many schools has contributed to the epidemic of obesity in this country. The importance of an active lifestyle, cessation of smoking, good nutrition, and regular exercise cannot be overemphasized. It is your role, and even your professional duty, to be proactive in counseling your patients for prevention and treatment of such chronic lifestyle diseases as obesity, diabetes, hypertension, and coronary artery disease.

### Adequate training

Knowledge in the field of sports and exercise medicine is as critical for practising family physicians as it is for those who pursue it as a more specialized career choice. Current training in this area in both undergraduate and postgraduate programs, however, is frequently insufficient or even absent. Too often students emerge from 4 years of medical school fully conversant with multiple presentations and diagnoses of relatively uncommon and esoteric diseases, but woefully unprepared for the onslaught of common things that they will encounter in their day-to-day practices. Medical students and residents should actively seek learning opportunities in sports medicine. An increase in demand for this type of training should put pressure on program directors to include it in their curricula and to use the expertise of sports medicine physicians in their community. Lectures and clinical-skills workshops on musculoskeletal examination should be mandatory in the undergraduate years, complemented later by electives and rotations in sports medicine.

### Resources for physicians

Other physicians who have been out in practice for a while might also feel the need to update their skills, and wonder where to turn for information. Journal articles, such as that by Dr Shrier, can help demystify the management of musculoskeletal injuries and offer a practical, basic initial approach to such problems. There are many provincial, national, and international sports medicine conferences, but relevant sessions are frequently also offered during family medicine conferences.

There is also a plethora of resources available on the Internet. Dr Carson and his coauthors (page 756) suggest several websites for the management of concussion in sport. The Canadian Academy of Sport Medicine and the American College of Sports Medicine both maintain active websites ([www.casm-acms.org](http://www.casm-acms.org) and [www.acsm.org](http://www.acsm.org)). These organizations regularly publish updated position statements and comments on important issues in sports medicine. Examples include "Physical Inactivity in Children and Adolescents," "HIV in Sport," "Bicycle Helmet Safety," and the "Female Athlete Triad (Disordered Eating, Amenorrhea and Osteoporosis)." Helpful information about selecting and effectively using home-exercise equipment (eg, free weights, elliptical trainers, treadmills, rowing

machines) can be found in the News section on the American College of Sports Medicine site. These organizations can also be sources for locating sports medicine physicians or services near you. The American Medical Society for Sports Medicine ([www.amssm.org](http://www.amssm.org)), for example, offers a "Find-A-Doc" service and copublishes a monograph on the Preparticipation Physical Examination. The National Association of Athletic Trainers ([www.nata.org](http://www.nata.org)) is another source of practical information on such topics as exercising in the heat, fluid replacement during exercise, and lightning safety.

Other uniquely Canadian resources include the Canadian Paediatric Society ([www.cps.ca](http://www.cps.ca)), which has an extremely productive committee on sports medicine. The Canadian Society for Exercise Physiology ([www.csep.ca](http://www.csep.ca)) focuses primarily on the science of exercise and physical activity, but on their site you can find and download the PARmed-X for Pregnancy, a useful guide to help you manage your active pregnant patients.

Sports medicine is no longer the purview of the elite, professional, or Olympic athlete. In the 21st century it has effectively come of age. Whether you choose to get involved on the sidelines of your child's soccer team, volunteer your time for medical coverage of a local marathon, or simply demonstrate by your knowledge and attitude the value of physical activity for health, this field has something to offer you and your patients. We can all help active people remain active, gently encourage and advise those who are not currently active, and learn to treat the athlete in each person. Perhaps after completing medical training, before venturing out into the world of real patient care, we should all add a codicil, a second Hippocratic Oath, to our vows:

*All parts of the body which have a function, if used in moderation and exercised in labours in which each is accustomed, become thereby healthy, well, and age more slowly, but if unused and left idle they become liable to disease, defective in growth, and age quickly.*

—Hippocrates

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