



Understanding which microRNAs are present in a patient could help Dr. Amanda Ali predict who might get arthritis.

particular, in warding off arthritis. “Muscle weakness often precedes the development of arthritis,” Dr. Ogilvie-Harris notes. Part of the landmark U.S. Framingham Heart Study looked at arthritis of the knee and found that patients with strong quadricep muscles were far less likely to get arthritis. Starting exercise at any age, he says, can significantly improve joint health. Stopping it can trigger a decline.

Miller started weightlifting at age 40. When she stops, the effects are immediate: “When I train hard, my back is completely discomfort free,” she says. “Right now, because I can’t lift, it’s worse. But I have never considered giving it up.” She won’t compete again this year, but in January, she and her husband will go to Brazil in search of sun and hard training.

Next June, she wants to compete in the Pan American games. After that, a year of travel: Spain, Morocco, Egypt, Turkey and India. At age 70, she plans to compete in the World Masters Weightlifting Championships in Japan, where she’ll be among the youngest in her age category and where, she says, “I just might win.”

| OSTEOARTHRITIS PREVENTION |

Improving OA through education

International program GLA:D (Good Life with osteoArthritis: Denmark) can help people with osteoarthritis (OA) improve their symptoms through exercise and education. Dr. Aileen Davis, epidemiologist and Krembil senior scientist, explains

By Wendy Haaf



Dr. Aileen Davis

Q: WHAT IS GLA:D?

Aileen Davis: We’ve long known that patient education, exercise and weight control can prevent or at least slow the progression of symptoms and functional problems experienced by people with hip and knee osteoarthritis. GLA:D Canada is a community-based, supervised, targeted program that incorporates these elements. It was developed in Denmark, and in partnership with Bone and Joint Canada we’ve brought it to Canada, and moved it from a research project into a national clinical program.

Q: HOW DOES PATIENT EDUCATION HELP?

AD: We spend a lot of time educating people about this paradox that, while it can hurt to be active, in the long run, exercise improves pain. We can help people learn how to manage their pain, and help them understand how much pain during and after exercise is OK. They then lose the fear of damaging their joints and feel more comfortable exercising.

Q: WHY IS EXERCISE IMPORTANT?

AD: When people have pain, they unconsciously change the way they move. That decreases muscle strength, and it can change joint alignment, which increases stress on the joints. Doing the right exercises can ease the load on the knee or hip by strengthening the muscles that support it. We also work on keeping people’s joints properly aligned during activities, like getting out of a chair and going down stairs.

Q: HOW WELL IS THE GLA:D PROGRAM WORKING?

AD: GLA:D has now been implemented in more than 150 clinics across Canada, and results indicate that people are achieving a reduction in pain intensity of about 33 per cent, and have improved function and quality of life. That’s a huge benefit for people.

In good hands

Bridging research with her clinical work, Dr. Heather Baltzer is treating more patients with severe hand injuries than almost any other doctor in Canada

By Tamar Satov



Craig Burgen is thrilled to be back at work after nearly losing his thumb in a workplace accident.

OCTOBER 23, 2018, IS A DATE Craig Burgen won’t soon forget. The 48-year-old industrial mechanic was in the midst of a repair, removing a massive eight-foot steel roller at the Woodbridge, Ont., plastic sheeting company where he works, when one side of it slipped and came down on his left hand like a guillotine. His thumb was severed between the two knuckles, left to hang perilously from a small piece of skin. “I held my thumb in my right hand and started to freak out,” recalls Burgen.

In shock, he didn’t feel any pain. Paramedics took him directly to Toronto Western Hospital, which performs the largest number of hand and finger replacements in the province.

“I felt like I was going to be in good hands, so to speak,” he says, reflecting on the experience. “You don’t realize how much you need your thumb until you don’t have use of it anymore.”

Hand injuries are extremely common, sending more Canadians to the emergency room annually than any other cause. In Ontario alone, research suggests that there are more than 100,000 cases of traumatic hand injuries every year – including fractures, dislocations and amputations.

These injuries can be life-changing. Arthritis, for example, is extremely common in hand-injury patients and can cause long-term health consequences, even if the damaged

joint was treated properly. As well, many patients find themselves struggling with mental health and addiction issues after a traumatic hand injury, according to research conducted by Dr. Heather Baltzer, a hand surgeon and interim director of the Hand Program, and a clinician investigator at Krembil. “Hand trauma is an unrecognized public health issue that has a profound impact on the patient, limiting the ability to carry out activities of daily living,” she says.

In an attempt to shed more light on hand trauma and improve patients’ lives, Dr. Baltzer and other researchers are looking at the economic burden of hand and wrist injuries, how