

BONE & JOINT HEALTH

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Jeremy Hotz

Canadian comedian, Jeremy Hotz, offers comedic relief on osteoarthritis, gout, and anxiety, in his exclusive interview with The Arthritis Society.



Question When did you find out you had osteoarthritis?

Answer I had an injury in my wrist and they had to put my finger back in place. I had an operation and they had to reattach the tendons so I could use my fingers again. Of course, it's riddled with arthritis. For my knee, sports really accelerated the process. Who knew my dad taking me to hockey practice at 5 a.m. four times a week was going to lead to osteoarthritis?

Q How has osteoarthritis affected your daily life?

A I can't eat luncheon meat. Oh wait —that's my gout. I have osteoarthritis in the left knee. When I'm in Los Angeles, my knee doesn't bother me that much — although I for sure know when it's going to rain (which isn't very often in L.A.). But, being back on tour — oh geeze.

On flights the change in air pressure can set the osteoarthritis in my knee off, so I try to take an Advil before I get on the plane as a preventative thing, but it still hurts — it still hurts anyway. My tour manager will say it's time to walk around a bit to keep me moving.

Signing autographs is difficult. Thank God we type now. I can't really hold a pen very long. Signing autographs can sometimes take up to two hours and my hand aches.

Q How do you cope with chronic pain and other symptoms?

A With arthritis, I find that the adrenaline I get when on stage will take away the pain completely, but when I get off stage — that's a different story. During my shows, the mind is working very hard. There's not a lot of time to think about the things that give me anxiety or the arthritic pain I feel in my knee or hand, but on stage — it magically goes away. I'm more comfortable in

front of 2,000 people than one-on-one with strangers off stage. If the anxiety came and attacked me while I was on stage — I wouldn't be able to perform.

I've been told to stay away from fried food, but I'm eating chicken wings — they're my comfort food.

I dropped 15 or 20 pounds before the tour because I knew that it was going to be demanding, so I really leaned on the treadmill. After all the TV interviews are done, I eat whatever I want again.

Q How do you help others to understand your diseases?

A I'm actually a weird sort of doctor. I make people laugh. For most, laughter is healing. I've incorporated my anxiety into my performance to try to explain how I really am to people. The number of people that come up to me after the show and say, "hey, I have it too" is mind-boggling. Talking about anxiety, gout, and osteoarthritis is really good. I've actually written a lot of jokes about my anxiety. I'm glad I can stand on stage and show the humour in it and how funny it can be. The anxiety and the way that I live my life have led to me becoming this performer that is different than anyone else. When I was a kid, they said I was eating too much ketchup and it was weird. Thank God my parents didn't listen to these crazy doctors back then. Now, I can be accepted for being different.

Q What advice would you give to others?

A Something that you're experiencing can really disrupt your life, but can be totally invisible to people outside of you. You're the only one that knows what you're feeling, you know the levels of pain you have, so do what makes you feel good all of the time. You can't succumb to peer pressure. However, don't fear 'What if?', you know? Face what you have instead of fearing it because if you fear it you'll never go outside.

Q What's next for Jeremy Hotz?

A The tour has just wrapped. We've taped all of the shows and if you go to JeremyHotz.com and sign up for my VIP list, you'll be able to get links where you can download the audio from the different shows we've done across the tour — it's the first time we've done that. 🎧

 Read more from Jeremy Hotz online at personalhealthnews.ca

What the Next Decade Holds for Osteoarthritis

When doctors Marc Feldmann and Ravinder N. Maini demonstrated the role of TNF inhibitors to treat rheumatoid arthritis back in the 1980s, it

was a game-changer for the management of the over 100 diseases we collectively call inflammatory arthritis. People who a generation ago would have been confined to a wheelchair or bedridden are instead living rewarding lives and participating fully in their families, their communities, and the economy.

Unfortunately, osteoarthritis (OA) — by far the most common form of arthritis, and one of the world's leading causes of disability — works differently from inflammatory diseases, and does not respond to these new treatments.

For people living with severe OA, the plan is pretty much the same as it was 30 years ago: deal with ever-increasing levels of pain and disability as the disease gradually deteriorates bone and cartilage in the affected joints, until the damage becomes too severe to bear. At that point they have to hope to qualify for joint replacement surgery — a highly invasive procedure that comes with significant risks and does not present a long-term solution. That's it. But, there's reason for hope.

The next 10 years: a revolution in OA care

The coming decade may represent as much of a watershed in OA treatment as the last 20 years have been for inflammatory forms of the disease. We stand on the cusp of breakthroughs that will forever change the way we manage OA, and Canadian researchers are leading the way in three key areas.

Regenerative medicine

With the advent of stem cell technology and other advances, we are learning how to harness the body's own regenerative powers to repair joint damage caused by arthritis.

Dr. Sowmya Viswanathan at the University of Toronto is embarking on a study funded by The Arthritis Society to explore the role of immune cells, which are meant to help repair a damaged joint, but somehow get subverted in some people's joints, contributing to the development of OA. The team is increasing the presence of a particular type of immune cell in human cartilage to see if it will halt further tissue degeneration, and hopefully kick-start the repair process.

Personalized medicine

We are developing treatments targeted to the unique genetic profile of the patient, significantly increasing effectiveness while reducing the likelihood of rejection and other adverse events.

In another Society-funded project, Dr. Rita Kandel's team at Toronto's Mount Sinai Hospital are growing replacement cartilage from a person's own tissue. They then layer the home-grown



Janet Yale
President, CEO,
The Arthritis
Society

cartilage over a new material that can take the place of damaged bone, but is porous enough to allow actual bone to grow into and eventually replace it. This process will allow the body itself to rebuild the damaged joint from the ground up to create a kind of natural joint replacement.

A deeper understanding of pain

Pain remains the single most debilitating symptom of arthritis. A complex system of molecules and receptors in the body, collectively referred to as the endocannabinoid system, plays a role in governing the body's pain responses — along with the immune system, appetite, and assorted other functions. The more we understand this system, the more we can target treatments that enhance the body's own ability to regulate pain.

An emerging theory is that part of the pain of OA is neuropathic in nature — arising from damage to the nervous system rather than to the joint itself. They may explain why current therapies are only mildly effective in managing OA pain. The Arthritis Society is currently funding Dalhousie University's Dr. Jason McDougall to investigate the ability of similar cannabinoid compounds sourced from medical cannabis to repair joint nerves and thereby relieve neuropathic pain from OA.

It's an incredibly exciting time: projects like these are taking place in research centres across the country, and they bring the promise of better days ahead for Canadians living with osteoarthritis.

Towards a cure

Helping people live better with arthritis today is critical, but so is making progress towards a cure. More than 4.6-million Canadians live with arthritis, yet this disease receives only a small allocation of national health research funding. Research progress has therefore been dependent on the commitment and support of individual Canadians who have chosen to make joint health a priority.

Imagine what would be possible if we combined our talent, ingenuity, and dedication with the financial resources to back them! We would then be able to accelerate research breakthroughs in OA and erase the pain of arthritis for good. ●

Janet Yale



SPOTLIGHT

JUVENILE ARTHRITIS

When most people think of a person with arthritis, they think of an elderly gentleman or lady with knobby fingers and a bad knee. However, as paediatric rheumatologists, we regularly treat younger patients — from toddlers to teenagers — with arthritis.

Arthritis can be transient, but when it lasts for at least six weeks, then it moves into the realm of chronic arthritis. Once other secondary causes have been ruled out in such a patient, by a thorough history, physical, and directed investigations, then the diagnosis of Juvenile Idiopathic Arthritis (JIA) can be made. JIA affects about 1 in 1,000 Canadian children. It causes stiffness, pain, and swelling of the joints. If not treated promptly and effectively, it can lead to permanent joint damage, disability, and chronic pain.

Children can be diagnosed with one of seven different subtypes of JIA. Depending on the subtype, different joints can be involved and different extra-articular (non-joint) manifestations of disease can occur, requiring different treatments. One of the subtypes is called oligoarticular JIA. This is the most common form of the disease and involves four or less joints within the first six months of disease. It typically starts at a very young age (peak incidence is between one and two years of age) and affects three times as many girls as boys. Common joints to be affected in these children are the knees and ankles. Parents may notice that their child is stiff in the mornings, often limping or asking to be carried. The stiffness may then improve throughout the day. If a child has a fever, rash, or other systemic symptoms along with the arthritis, then they may have systemic arthritis, another subtype of JIA. This condition, previously known as Still's disease, affects boys and girls equally. These children can be very unwell and need urgent assessment and treatment. A third subtype of JIA is called polyarticular rheumatoid factor (RF) positive JIA. This subtype involves five or more joints in the first six months of disease and resembles the adult disease rheumatoid arthritis. Although this subtype can occur at any age under 16 years, the most common peaks include one to three years and later childhood/adolescence.

An important complication of JIA to be aware of is inflammation of the eyes, called uveitis. Every child with JIA needs regular screening eye exams because this type of uveitis can be asymptomatic. Untreated, uveitis can lead to cataracts, glaucoma (increased eye pressures), or even blindness.

Hope for the future

The good news is that research has come a long way in the field of paediatric rheumatology in recent years and the treatments available for JIA are now quite good. Our goal is for all patients with JIA to have zero inflammation and to live active, productive lives. Exercise is good for arthritis and physiotherapy is often part of the treatment plan.

As a parent, if you suspect that your child has a form of JIA, then you should make an appointment for them to see their family physician or paediatrician (or, alternately, if they are unwell, bring them to the emergency department). Prompt referral to a paediatric rheumatologist for assessment should then be made at the discretion of the treating physician. ●



Dr. Dax Rumsey
MD, FRCP(C), Paediatric
Rheumatologist and Assistant
Professor, Stollery Children's
Hospital and University of Alberta

Psoriasis Sufferer Experiencing Joint Pain? You May Have Psoriatic Arthritis

Thirty percent of psoriasis sufferers will develop joint pain and inflammation — a lesser-known form of arthritis known as psoriatic arthritis — that can cause permanent joint damage if left untreated.

Eight years ago, paramedic Stephen Duffy began experiencing joint pain in his toes and feet. While he was just 35 years old at the time, Duffy attributed his symptoms to the beginnings of old age. It wasn't until he was referred by his family physician to rheumatologist Dr. Proton Rahman that he was diagnosed with psoriatic arthritis.

"Approximately 30 percent of individuals with psoriasis will have joint pain related to it," explains Dr. Rahman, a rheumatologist and genetic epidemiologist at Memorial University in St. John's, Newfoundland. "It's different from degenerative arthritis that is common as we get older," Dr. Rahman says. "Psoriatic arthritis is due to inflammation."

Duffy had mild psoriasis as a child but his joint inflammation became more severe than the skin problems he suffered. Hamilton-based dermatologist Dr. Ronald Vender says that psoriatic arthritis can occur prior to a psoriasis diagnosis, at the time of diagnosis or, most commonly, later on in life. "As one of the potential co-morbidities, we're constantly asking [psoriasis patients] if they're suffering from any joint pain or morning stiffness," explains Dr. Vender, who says that many of his patients don't associate their joint pain with



Psoriatic arthritis sufferer Stephen Duffy with his two children. Photo: Submitted

their skin disorder. "This inflammation is throughout their whole body. Skin and joints are two aspects of their inflammation among other areas that can be affected as well." As a systemic disease, psoriasis can also affect tendons, the heart, gut, and eyes along with joints and skin.

Psoriatic arthritis is typically treated with anti-inflammatory medications. But, research developments have helped rheumatologists like Dr. Rahman deliver more targeted therapies to psoriatic arthritis sufferers. "There is a much better understanding of key pathways, we call them cytokines, that drive the disease process," he says. "It was recognized that one of the cytokines that propagates psoriatic arthritis is TNF. Drugs that inhibit TNF have been helpful." Dr. Vender has also found success in treating his patients with a new advanced anti-inflammatory medication that targets these cytokines, in a pill form. "This new oral therapy is used as an anti-inflammatory that can help the skin and joints together," he says.

If psoriatic arthritis continues untreated, permanent damage to the joints can occur, making early diagnosis an integral factor in successful treatment. Dr. Dafna Gladman, Director of the Psoriatic Arthritis Program at Toronto Western Hospital, has studied the diagnosis



**300,000 Canadians
live with Psoriatic
Arthritis**

and delay of psoriatic arthritis. "If patients came into the clinic within two years of diagnosis, they did much better than those that came in after two years of diagnosis in terms of progression of damage," says Dr. Gladman. Further information from a St Vincent's University Hospital study reveals even stronger evidence to the benefits of early treatment, Dr. Gladman explains. "It showed that if there was a delay of more than six months from the time of onset of symptoms to the time the patient saw a rheumatologist, they did much worse."

Dr. Vender encourages those with psoriasis to talk to their doctors if they're experiencing joint pain. "In patients that suffer from skin psoriasis, they should be aware that any aches and pains in the joints or morning joint stiffness can be a clue to a diagnosis of psoriatic arthritis," he says.

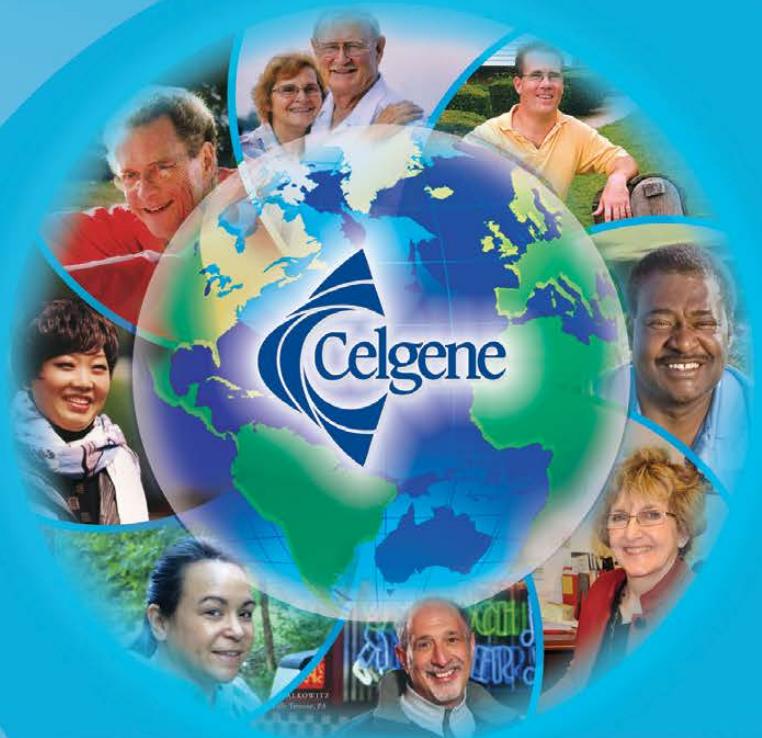
For psoriatic arthritis sufferer Stephen Duffy, proper diagnosis has made all the difference in his quality of life. "I had to get my daughter to help me get my boots off. I was that sore," Duffy remembers. But, two days after starting a new medication, he was walking on a treadmill at a brisk pace for an hour — something he wouldn't have imagined doing earlier. It's the type of turnaround that Dr. Gladman hopes that all psoriatic arthritis sufferers can achieve. "The new medications have certainly been life changers for many of our patients, no doubt about it." **●**

Andrea Yu

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IMPAKT-HiP

Preventing Hip Pain

IMPAKT-HiP (Investigations of Mobility, Physical Activity, and Knowledge in Hip Pain) is a research study that is identifying if hip pain is caused by certain types of physical activities, a hip deformity called femoroacetabular impingement (FAI) or the combination of both. By determining the cause of hip pain we can prevent hip damage and open the door to preventing hip osteoarthritis. This and other ground-breaking work is being led by Dr. John Esdaile, Scientific Director of Arthritis Research Canada (ARC) and his team of 70 research scientists and staff.

Why is This Study Important?

Not enough is known about the cause of hip osteoarthritis. It is a disease that keeps people from doing the activities they love and often affects their ability to work. Many of those affected spend years suffering, slowly eliminating activities and limiting their lifestyle as the pain gradually increases. Believing that it's just normal aches and pains which will go away, often the symptoms are ignored. What results is hip osteoarthritis, occurring when cartilage is damaged. This damage is responsible for 90% of hip replacements. ARC's study aims to detect hip osteoarthritis much earlier and develop recommendations to prevent the disease, thereby reducing costly surgeries and surgery wait times. This research will greatly improve the quality of life for Canadians who experience hip pain.



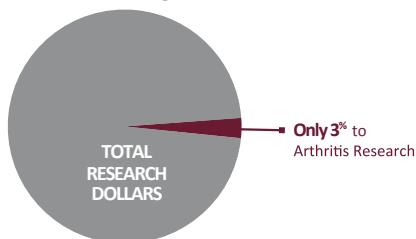
Is Hip Osteoarthritis Caused by Physical Activity?

ARC's scientific team will look at the interaction between specific types of physical activity and FAI on hip pain, as well as the role of physical activity over a lifetime in causing hip osteoarthritis. New imaging techniques and a state of the art standing MRI machine are being used to see how the physical motion and the deformity combine to damage cartilage.

What is FAI?

Femoroacetabular impingement or FAI is described as a bony deformity of the hip. Not enough is known about FAI. However, we believe that certain physical activities involving hip flexion and repetitive hip flexor activity, such as hockey, soccer and cycling, combined with FAI, cause friction in the hip joint and damage to the cartilage resulting in osteoarthritis.

Research Funding in Canada



Arthritis is the #1 most costly, chronic disease



Why Support Arthritis Research Canada (ARC)?

- ✓ **Leading Research** by creating a future where people living with arthritis are empowered to triumph over pain and disability.
- ✓ **Finding Answers** in arthritis prevention, early diagnosis, treatment and quality of life issues.
- ✓ **Saving Lives** through more than 75 research projects, covering the breadth of arthritis.

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COMMERCIAL FEATURE

Scientific research shows the effectiveness of medical cannabis on pain

A growing body of scientific research is helping the medical community understand the effect of medical cannabis and cannabinoids (an active compound found in cannabis) on pain management. Dr. Mark Ware, director of clinical research, Alan Edwards Pain Management Unit, McGill University Health Centre, has been studying them since 1999.

While working at a pain clinic, a patient of the physician casually mentioned that he thought cannabis was helping manage his achiness. The doctor became interested in knowing more. He found from all the papers he read that they seemed to conclude with the same observation — clinical trials are needed.

The search for answers

"I was a researcher and clinician interested in pain research and complementary therapies that were patient-driven ways to treat pain outside the classic pharmacological model," he says. That provided the inspiration to study medical cannabis. "I'm interested in providing the data to assist physicians make informed decisions about its role in patient treatment."

In December 2015, the findings of researchers, including Dr. Ware, now an internationally acclaimed expert, were published in *The Journal of Pain*. In a large-scale study, 215 patients with chronic pain from seven clinics across Canada were dispensed cannabis with a standardized amount of delta-9-tetrahydrocannabinol or THC (12.5 percent) and monitored for a one-year period. It was the first and largest study of the long-term safety of cannabis. The data showed daily users had no greater risk of serious adverse effects than non-users.

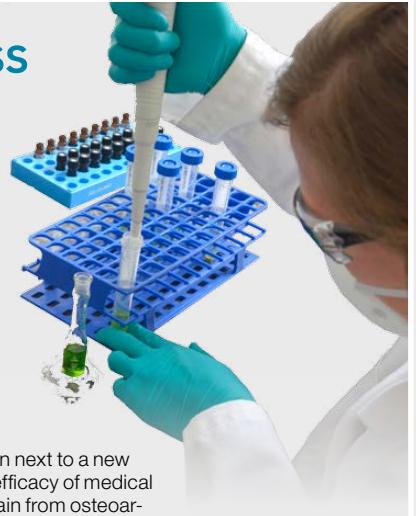
In an earlier study designed by Dr. Ware and his team, published in the *Canadian Medical Association Journal* in October 2010, the effectiveness of cannabis on patients with neuropathic pain was examined. The results supported claims that inhaled and properly dosed cannabis reduced pain, improved mood, and helped sleep.

This type of research is important for both patients and the medical community to have and to consider. "We need this data to make decisions. We believe that science can help," says Dr. Ware.

Some old attitudes and myths still prevail. Having scientific information is needed to address them. "It will take a generation or two for attitudes about cannabis to change. We've been so entrenched in the thinking that cannabis is a drug and it's bad. As we begin to know it more, we are realizing that it is a lot more nuanced and it has a wealth of potentially beneficial properties."

Dr. Ware is turning his attention next to a new study, looking at the safety and efficacy of medical cannabis among patients with pain from osteoarthritis of the knee. The CAPRI Trial will explore the effect of varying levels of THC and CBD, two active compounds in cannabis, on pain management in vaporized form. Currently, patients are being recruited for it in Montréal and Halifax. Results are expected in 2017.

It will take a generation or two for attitudes about cannabis to change.



How science helps

Studies like this will advance medical cannabis research in Canada and that's critical, according to Brent Zettl, President and CEO of Prairie Plant

Systems Inc. and CanniMed Ltd., the first cannabis producer to be licensed under the new Marihuana for Medical Purposes Regulations (MMPR) enacted by the federal government in 2013.

"We've had an abundance of anecdotal evidence about the effectiveness of medical cannabis, but that's not enough, says Zettl. "Clinical research is critical because it gives the information needed to healthcare professionals so they can assess whether their patients would benefit from medical cannabis." He adds, "There is still so much we don't know about how it works. There are so many discoveries yet to come."

Clearly, the growing body of scientific evidence on medical cannabis is positive for physicians and patients alike.

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Dr. Peter Fisher
Clinical Director, Royal
London Hospital

Dr. Peter Fisher, Clinical Director at the Royal London Hospital for Integrated Medicine and physician to Her Majesty, Queen Elizabeth II, discusses how patients can benefit from integrating homeopathic medicines into traditional healthcare.

Mediaplanet Where did your interest in homeopathy begin?

Dr. Peter Fisher I first got interested in homeopathy while I was a medical student at Cambridge University. I went to China and I remember being in the operating theatre of a small Chinese provincial town. They were practicing traditional medicine and I remember thinking: "They didn't tell us about that at Cambridge!" Soon after that, I was ill myself and I sent to see a distinguished professor at Cambridge who said: "Tough, nothing can be done." A friend suggested I try homeopathy, so I did. I treated myself initially and it worked.

A World-Renowned Doctor Battles for Freedom of Choice in Medicine

MP What is homeopathy?

PF Homeopathy is a system of medicine that's based on the idea the body has powerful self-healing powers, but those powers don't always react appropriately. Homeopathic remedies inform the body's self-healing processes by giving the body information. About 60 percent of homeopathic medicine uses plants, but also uses other things, such as minerals and animal products.

MP How can patients benefit from integrating homeopathic medicines into traditional healthcare?

PF It's not uncommon to see patients who are on seven or eight drugs, and it's well-established that when you're on that many drugs, your chances of getting an adverse reaction are close to 100 percent, especially if you're older. So one thing is safety — homeopathy offers safer treatments.

MP What are your thoughts on freedom of choice in medicine?

PF As I wrote recently in a letter to the Canadian Minister of Health, Dr. Jane Philpott, there's plenty of evidence that homeopathy works, and it's safer and less expensive than conventional medicine. The fact is that people should be able to make their own decisions. Why assume the state knows best?

MP How is homeopathy used in other countries?

PF It's fantastically popular in India, and it's very widely used in many parts of Western Europe.

In the United States, 50 percent of plastic surgeons use homeopathic Arnica in nose jobs because it improves the rate of healing. It has no side-effects and no drug interactions. ●