

Arthritis is one of the most prevalent chronic conditions and a leading cause of disability in Canada. The term arthritis is used to describe the collection of symptoms that occurs when an individual presents with inflammation in one or more joints.<sup>1</sup> These symptoms commonly include pain, stiffness, redness, heat and swelling. In fact, the word arthritis literally means joint (“arthro”) inflammation (“itis”)!

If you are affected by arthritis, you are not alone! According to statistics collected by the Arthritis Alliance of Canada, **one in six** Canadian adults (15 years old and up) report having arthritis and the potentially debilitating symptoms that go along with joint inflammation.<sup>2</sup> To put it into perspective, that’s approximately **4.6 million** individuals in Canada alone. These statistics are even more alarming in our province of Nova Scotia as **one in four** adult Nova Scotians report having arthritis.<sup>3</sup> In today’s blog, we will cover some of the more common types of arthritis discussing clinical presentation, etiology, and some strategies to manage symptoms associated with joint inflammation. Please keep in mind; these strategies are for general information purposes only. No two people are alike, and what benefits one individual may not be safe or effective for everyone else. For more information and to get an **individualized** treatment plan specific to YOUR needs, please visit your naturopathic doctor.

### **Osteoarthritis:**

Osteoarthritis, OA, is the most prevalent form of arthritis and increases in incidence as we age. Essentially, it is degeneration of cartilage—that tough, rubbery layer of connective tissue that protects the end of bones—caused by “wear and tear” throughout our lifetime. Individuals involved in activities that are high impact, or demand repetitive overuse of certain joints, may be at a higher risk of developing OA. It commonly presents in large, weight bearing joints such as knees, hips and spine but is not isolated to these areas. Symptoms include joint pain, stiffness, swelling, redness and reduced mobility.

### **Rheumatoid arthritis**

Rheumatoid arthritis, RA, is an autoimmune disease that leads to inflammation in the joints. Autoimmune means that the immune system mistakenly identifies the body’s healthy cells as foreign invaders. When this happens, immune cells are released and repeatedly attack healthy cells—in the case of RA, the cells that make up joint tissue! In some cases, non-joint tissue may be affected including the heart, lungs, vascular tissue, nerve and eyes. Joint symptoms include pain, swelling, joint damage and deformity. In contrast to OA, rheumatoid arthritis often presents in smaller joints on both sides of the body. The progression of this disease varies greatly between individuals and may lead to significant debility.

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<sup>1</sup> David Hoffman, *Medical Herbalism: The Science and Practice of Herbal Medicine* (Vermont: Healing Arts Press, 2003) 411-416.

<sup>2</sup> The Arthritis Society, *Arthritis Facts and Figures*, (2015), <https://arthritis.ca/getmedia/43e83e3e-1a54-4fda-81d5-042ffaf9983f/Arthritis-Facts-Figures-EN.pdf>

<sup>3</sup> Arthritis Community Research & Evaluation Unit, *Arthritis in Nova Scotia*, (2013), <https://arthritis.ca/getmedia/7ec2d446-ea27-4e83-be80-0a55e5e0260c/arthritis-in-Nova-Scotia-2013.pdf>

## Gout

Gout is an inflammatory condition characterized by the deposition of uric acid crystals in the joint. Uric acid is produced in our bodies when we break down purine compounds—which are naturally occurring compounds in our bodies and also found in several protein-rich foods like red meat and certain seafoods. As these crystals are deposited, the inflammatory cascade is initiated by the immune system leading to pain, redness, swelling and heat. Unlike the other chronic types of arthritis we are discussing today, gout is known to come quickly and then completely resolve. The most common site of uric acid deposition is the big toe, but other joints may also be affected!<sup>4</sup>

### What can you do about it?

#### Hydrotherapy:

- Using contrast hot and cold application at home can help to manage pain and reduce inflammation. Application of ice constricts blood vessels and reduces inflammation while hot application increases blood flow to the area and helps to remove waste products. By alternating between hot and cold application you can heighten the healing effects!

#### Nutrition:

- As for any inflammatory condition, it is important to identify which foods are nourishing your body and which may be causing more harm than good. Even healthy foods can be problematic for some individuals and certain health concerns. An **elimination diet** can help you identify any food allergies or intolerances that may be increasing inflammation in your body.
- In addition to identifying food sensitivities, **choosing whole foods and avoiding refined sugars** can help to manage inflammation and provide your body with the nutrition it needs to promote healing. Antioxidants—which are compounds found in lots of fruits and veggies—are important for treating arthritis and help to protect from further joint damage. So be sure to get your 7-9 servings of fruit and veggies every day!
- Some research is showing the periods of **fasting or detoxing** can be beneficial for managing symptoms associated with arthritis.<sup>5,6</sup> As toxins and allergens lead to the release of pro-inflammatory immune cells, limiting our exposure to these substances

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<sup>4</sup> Alan R. Gaby, M.D., *Nutritional Medicine*. (Concord, NH:Fritz Perlberg Publishing, 2011) 583-607

<sup>5</sup> Longo VD and Mattson MP, “Fasting: molecular mechanisms and clinical applications”, *Cell Metab.* 2014; 19(2):181-92.

<sup>6</sup> Smedslund G, Byfuglien MG, Olsen SU and Hagen KB, “Effectiveness and safety of dietary interventions for rheumatoid arthritis: a systematic review of randomized controlled trials”, *J Am Diet Assoc.* 2010;110(5):727-35

can help to decrease systemic inflammation and joint damage. It is important to note that fasting should *always* be supervised by a medical professional to ensure safety.

- Making sure our bodies are fully **hydrated** is crucial to overall health. Guidelines recommend the average adult should be consuming approximately 2-3 liters of water/day.

#### *Specific foods:*

- **Cherries:** Anecdotal reports suggest that drinking cherry juice can rapidly provide relief from acute attack of gouty arthritis. The scientific studies to support this claim are lacking but the strong anecdotal reports may provide a platform for future research. And really, who doesn't love cherries?
- **Nightshades:** These are a family of vegetables including tomatoes, potatoes, peppers, tobacco and eggplant. Nightshades contain alkaloid constituents which can increase systemic inflammation and reduce collagen repair. Avoiding, or limiting nightshade intake may help to reduce symptoms associated with arthritis.

#### *Lifestyle:*

- **Smoking cessation** is important for overall health but can also improve outcomes in individuals with arthritis. Not only is tobacco in the nightshade family—as discussed above, but smoking is a known risk factor for arthritis and can decrease effectiveness of management strategies. A recent study investigating the pathogenesis of rheumatoid arthritis found links between chronic inflammatory responses in lungs of smokers and a particular autoantibody implicated in RA.<sup>7</sup> There are *many* ways that naturopathic medicine can support you on your smoking cessation journey! Maybe a topic for our next blog?
- By achieving **optimal body weight** through nutrition and movement, we can decrease risk of developing arthritis and help manage symptoms for those who have already been diagnosed. Movement helps increase blood flow and nutrients in joints thereby facilitating repair of damaged tissue. Weight loss, if indicated, can reduce the burden on weight bearing joints and support the healing process.
- Focusing on **low-impact exercise** such as swimming, yoga and tai-chi can provide the therapeutic effects of movement without straining the joints.

#### *Acupuncture and Traditional Chinese Medicine*

- **Acupuncture** has been shown to significantly improve pain and mobility issues associated with arthritis. In Traditional Chinese Medicine theory, the stagnation or blockage of qi is a common cause of arthritic symptoms. Acupuncture, along with the

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<sup>7</sup>Anderson R, Meyer PW, Ally MM, and Tikly M, “Smoking and Air Pollution as Pro-Inflammatory Triggers for the Development of Rheumatoid Arthritis”, *Nicotine Tob Res.* 2016

use of Chinese herbs, can help to improve the smooth flow of qi and thereby reduce pain.

#### *Botanical medicine*

- Both topical and internal **herbs** are commonly used by naturopathic doctors to help reduce inflammation and pain associated with arthritis. These herbs may be in the form of capsules, tinctures or teas! Some common herbs used for treating arthritis include *Curcuma longa* (turmeric), *Zingiber off.* (ginger), *Harpagophytum procumbens* (devils claw) and *Boswellia serrate* (insence tree). Talk to your ND to find out which herbal formulas may be best for you.

#### *Nutritional supplements*

- Some common nutritional supplements used to manage arthritis include omega 3's, vitamins C, E and several of the B's, glucosamine sulfate, chondroitin sulfate, methylsulfonylmethane (MSM), natural eggshell membrane and many more. Similar to botanical medicine, **nutritional supplement** protocols are developed by your ND based on your individual case in order to achieve optimal nutritional status for healing to begin. It is important to make sure you are taking the proper supplements—those which will be safe and effective for you based on your presentation, medical history, current nutritional status and current pharmacological interventions—in a therapeutic range.

Whether you're looking to manage current arthritis or prevent future development, naturopathic medicine is an incredible tool to help support you on your journey to health and well-being!

To book an appointment, call the Legge Health Clinic at 902-843-7475 or email us at [office@leggehealth.ca](mailto:office@leggehealth.ca). I look forward to working with you in the future!

In health,

Dr. Stephanie Millett, ND