

Chronic Diseases in the Elderly: Arthritis

A Research Paper by the All4Smiles Research Team

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Abstract

According to research done by the National Council on Aging, around 95% of adults 60 and older have at least one chronic condition. In addition, nearly 80% have two or more.

Considering the susceptibility elders have to chronic diseases, this research paper and hopefully future issues will focus on different chronic diseases and how elders can recognize different kinds of diseases, their risk factors, available and developing treatment options, how they can utilize diet and nutrition to fight back, and how these diseases can impact their day to day lives. For December, our focus is on arthritis.

Table of Contents

| | |
|--|--------------|
| 1) Types of Arthritis..... | 4-6 |
| 2) The Impact of Arthritis on Quality of Life..... | 7 |
| 3) Arthritis Treatment Options..... | 8-10 |
| 4) Adopting an Anti-Inflammatory Diet | 11-12 |
| 5) Works Cited..... | 13-14 |

Types of Arthritis

By: Ifra Iyoob

There are over 100 types of arthritis, or conditions that affect the tissues around the joint and other connective tissues; however, considering the required brevity of this paper, we will be focusing on the six most common types of arthritis. Those include 1) osteoarthritis, 2) rheumatoid arthritis (also known as RA), 3) fibromyalgia, 4) gout, 5) lupus, and 6) psoriatic arthritis.

Osteoarthritis

This is the most common form of arthritis, with more than 32.5 million Americans currently diagnosed with the condition. The most prevalent symptom of osteoarthritis is the pain, stiffness, and swelling associated. In addition, those affected will often notice a decreased range of mobility and flexibility. This is because osteoarthritis initiates the breakdown of a joint, which while happening, causes the bone underneath to change. As this progresses, the aforementioned symptoms arise.

Rheumatoid Arthritis (RA)

While less common—over 1.3 million Americans are currently impacted—rheumatoid arthritis is one of the most disabling forms of the encompassing condition. It is also the most common form of autoimmune arthritis. Unlike osteoarthritis, rheumatoid arthritis is overly common in women; in fact, the American College of Rheumatology reported that around 75% of those diagnosed with the condition are female patients. Rheumatoid arthritis can show up at any age, but it usually emerges around the age bracket of 30 to 50 years.

Like osteoarthritis, rheumatoid arthritis carries many of the same symptoms, such as pain, swelling, and stiffness. Most often, rheumatoid arthritis impacts the small joints in the hands and

feet. However, it can still affect other organs like the eyes and skin. Interestingly, the condition typically causes the most stiffness in the morning. This specific sign makes rheumatoid arthritis more differentiable and diagnosable compared to other forms of arthritis.

Fibromyalgia

This form of arthritis is less noticeable and easily recognizable as a chronic disease compared to the previously discussed conditions. Fibromyalgia is difficult to diagnose, so it is important for those who experience any of its symptoms to speak to their healthcare provider on getting a diagnosis. This is in part because fibromyalgia, surprisingly, does not damage the joints or muscles. Some of the main symptoms still impact those areas, however; for instance, chronic pain—this can be bodily or in specific places—fatigue, muscle and joint stiffness, and issues with concentration all are associated with fibromyalgia.

Fibromyalgia is a long-lasting disorder and like rheumatoid arthritis, is more common in women—they are around twice as likely to have the disease. However, this does not mean that men do not get the condition. In addition, middle-aged people are also more likely to be diagnosed.

Gout

This condition is a common type of inflammatory arthritis which causes swelling and pain in the joints. Unlike fibromyalgia, which is long-lasting, gout comes and goes in waves; it can flare up for a week or two and then go away. Often, these flare ups take place in the big toes or lower limbs. Fortunately, gout is one of the most controllable forms of arthritis—through early diagnosis, treatment, and lifestyle changes, one can easily decrease the prevalence of their symptoms and even get rid of the condition entirely.

Lupus

Over 1.5 million Americans suffer from lupus, according to the Lupus Foundation of America. Within that statistic, over 90% are women, who typically develop the condition between the ages of 15 to 44. Like fibromyalgia, lupus is a long-lasting autoimmune disease that causes pain to not only the joints, but to any part of the body. Still, it most commonly impacts the skin and joints as well as internal organs like the kidneys and heart.

Psoriatic Arthritis

This condition is a kind of inflammatory autoimmune disease, specifically causing inflamed joints. Often but not always, psoriatic arthritis shows up in people that already have psoriasis—this is an autoimmune skin condition. Those impacted by psoriatic arthritis usually feel the most pain in their large joints, like the knees and shoulders, as well as fingers, toes, and the back or the pelvis. Usually, these symptoms show up around the ages of 30 to 50 and can be mild to more chronic, causing joint damage if not treated correctly.

Impact of Arthritis on Quality of Life

By: Joyce Sato

Arthritis continues to impact the quality of life in seniors; mental health, daily life, and overall health are significantly impacted by these osteoarthritis and rheumatoid conditions. Arthritis can be characterized by a number of common symptoms: chronic pain or stiffness, or joint inflammation and deformities. These symptoms oftentimes limit physical activity and ability, directly impacting the overall health as physical movements are crucial for staying in shape.

Outside of physical reverberations, arthritis can have a significant impact on our mental health. Arthritis is oftentimes painful, leading to emotional distress and feelings of anxiousness that can diminish our emotional stability and overall contentness. Our mental health has a lasting impact on our overall health, and it is necessary that we stay healthy in all areas, physically and mentally.

Fortunately, there are a wide number of options to treat and handle these conditions. This includes the many means of medical treatment, lifestyle adaptations and coping mechanisms, as well as psychological support. All of these different approaches are designed to benefit and aid us in finding solutions that will keep us healthy in every aspect.

Arthritis Treatment Options

By: Evelyn Yao

The mark of time makes itself known in delicate smile lines and a rush of golden memories, yet also in aching joints and stiffness. Arthritis is a disease that damages the joints, including the hands and wrists, knees, hips, feet and ankles, shoulders, and lower back. The disease is most common in adults who are 50 years or older, due to their lifelong movement that naturally wears down their joints. While arthritis takes shape in many forms, like sharp flares of pain or constant pain, treatment certainly alleviates symptoms and provides relief. Along with common treatments like medication and physical therapy are newer options like surgical options and emerging therapies; more research is being studied to eliminate arthritis pain completely.

To begin, a number of medications can be prescribed or taken over the counter to deal with the pain from arthritis. One type of medication is called a nonsteroidal anti-inflammatory drug, or NSAID. This drug relieves pain and inflammation by blocking hormone-like substances called prostaglandins. While they do help with symptoms of arthritis, they do not cure arthritis completely. However, NSAIDs also present a variety of side effects, ranging from stomach irritation to an increased risk of nausea and kidney problems. Some examples of NSAIDs include aspirin, ibuprofen, and naproxen. Similarly, disease-modifying antirheumatic drugs (DMARDs) can be used to stop or slow the inflammation and reduce the progress of the disease. Though it is used specifically for rheumatoid or psoriatic arthritis, DMARDs can also be used to treat other

inflammatory forms of arthritis. Because DMARDs take weeks or months to take full effect, one's doctor might prescribe two or three at a time for immediate results. Despite its capability of treating arthritis, DMARDs do compromise the body by lowering the body's protection against germs, causing one to be more prone to infections. A biologic is a type of DMARD that is significantly strong, yet expensive. Some are given as a shot while others are transferred via an intravenous infusion (IV). These biologics all fight to slow arthritis, and they include anti-TNFs, interleukin inhibitors, and B-cell inhibitors. Finally, analgesics are used for treating general pain but do not treat inflammation. Some examples are Tylenol and opioids, but one must be careful not to overdose on them.

Staying fit and exercising daily can also help with arthritis management. Professional physical therapists can help those with arthritis develop a consistent and safe physical therapy plan to maintain mobility while restoring the use of affected joints. A type of physical therapy, hydrotherapy, involves doing special exercises in a warm-water pool. The therapy focuses on slow, controlled movements and relaxation, as the warm water relaxes one's joints and relieves pain. Most hospitals have access to hydrotherapy pools, and checking in with one's local physician is the best course of action to get started with hydrotherapy. Yoga presents similar benefits, as it is a safe yet effective way to increase physical activity, which is essential to those with arthritis, according to treatment guidelines published by the American College of Rheumatology. Yoga plays a key role in promoting joint health, which may be further damaged if not utilized. Not only does yoga provide physical activity, it also provides mental benefits as it reduces feelings of stress and frustration. Yoga is a grounding technique for seniors with arthritis to exercise in a safe manner.

If a person with arthritis is in severe pain and other treatments do not work, surgery is the best option. Not only does surgery reduce joint pain and improve mobility, it also improves quality of life and helps the patient reduce their intake of anti-inflammatory drugs. Joint fusion is when the bones are surgically joined together, and it is commonly used for the spine and ankles. For damaged joints or bone loss, arthroplasty (joint replacement) is the best option as it removes the damaged natural joint and replaces it with an artificial joint. A synovectomy removes the synovium, which is the tissue lining of the joints, to reduce swelling; it is used to treat rheumatoid and psoriatic arthritis. Additionally, an osteotomy cuts or repositions a section of bone near a damaged joint in order to restore proper alignment. A promising emerging therapy for arthritis is the use of stem cells to regrow cartilage and cushion the bones to reduce joint pain. Stem cell treatment has the potential to be used as injection therapy and also in supplement to orthopedic surgical procedures. Only a few limited studies have shown success of cartilage regrowth, but patients who completed the procedure report improved quality of life and pain relief.

Though arthritis plagues many seniors, treatment is available to alleviate the pain and restore quality of life. From medications like NSAIDs and DMARDs to surgical options, consulting one's own physician if the pain is unbearable is the first thing to do. It is important to note the significant side effects of medications, including nausea and increased risk of medication, so staying fit is a key component of being healthy. If no other treatment is working, surgery can reduce pain, and exciting new innovations like stem cell therapy has a bright future for arthritis patients.

Adopting an Anti-Inflammatory Diet

By: Mumtahina Hemi

An anti-inflammatory diet emphasizes whole, nutrient-rich foods that can help reduce chronic inflammation—a contributor to various health issues, including heart disease, diabetes, and arthritis.

Key Components of an Anti-Inflammatory Diet:

- **Fruit and Vegetables:** Rich in vitamins, minerals, and antioxidants, these foods combat oxidative stress and inflammation. Consuming a variety of colorful produce ensures a broad spectrum of nutrients.
- **Whole Grains:** Foods like brown rice, quinoa, and whole wheat bread are high in fiber, which has been linked to lower levels of inflammation compared to refined grains.
- **Healthy Fats:** Incorporate sources of omega-3 fatty acids, such as fatty fish (e.g., salmon, mackerel), flaxseeds, and walnuts, which have anti-inflammatory properties.

Limit saturated and trans fats found in red meat and processed foods, as they can promote inflammation.

- **Nuts and Seeds:** Almonds, chia seeds, and similar options provide healthy fats and antioxidants that support inflammation reduction.
- **Herbs and Spices:** Turmeric, ginger, and garlic contain compounds with anti-inflammatory effects and can be easily added to various dishes.

Supplements:

- **Omega-3 Fatty Acids:** If dietary intake is insufficient, omega-3 supplements can help reduce inflammation. Consult a healthcare provider before starting any supplement regimen.
- **Glucosamine:** Commonly used for joint health, some studies suggest glucosamine may have anti-inflammatory effects, though more research is needed. Consult a healthcare provider for personalized advice.

Foods to Avoid:

- **Processed Foods:** Items high in added sugars, saturated fats, and trans fats can promote inflammation. Examples include sugary snacks, fried foods, and processed meats.
- **Refined Carbohydrates:** White bread, pastries, and other refined carbs can spike blood sugar levels.
- **Excessive Alcohol:** High consumptions of alcohol can increase inflammation

Adopting an anti-inflammatory diet can truly change your lifestyle in the best way possible. Taking care of yourself is highly important and the food you intake is a major part of it.

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