# The Alliance Update

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Fall 2024 Edition

Alliance Chiropractic & Wellness Clinic Chiropractic-Massage-

Chiropractic-Massage-Naturopathic Medicine

### Health Newsletter

# Can Diet and Lifestyle Changes Reduce Arthritis Symptoms?

Source: Medscape; Becky McCall; June 18, 2024



An intervention consisting of a plant-based diet, exercise, and sleep and stress advice improved pain, stiffness, and physical function in people with knee and/or hip osteoarthritis (OA) and metabolic syndrome. In rheumatoid arthritis (RA) patients, not only did disease activity improve significantly with the same intervention, but their medication use also decreased.

Two years later, RA patients from the original PFJ [Plants for Joints] intervention group had maintained the significant improvement in disease activity. Note that although they were encouraged to continue with the same intervention factors once the 16 week study ended, this activity was not tracked,

Some initial improvements in body composition and metabolic outcomes were also maintained at the end of the 2-

year extension phase, and there was a net decrease in anti rheumatic medication use.

In the patients with OA, the PFJ intervention improved pain, stiffness, and physical function in people with knee and/or hip OA and metabolic syndrome. In the 2-year extension study, these effects were maintained, and lasting body composition changes and a decrease in cholesterol-

lowering medications were also observed. There was also high acceptance of the program. This study showed long-term maintenance of clinically relevant effects.

The PFJ program involved patients following a whole food, plant-based diet, and advice on exercise and sleep and stress management.

In this <u>study</u>, the program lasted 16 weeks. The diet was a plant-based version of the <u>Dutch dietary guidelines</u> with a focus on unprocessed food. It was rich in whole grains, legumes, nuts, seeds, fruit, and vegetables, but without calorie restrictions and participants had one-to-one contact with a dietitian. The exercise advice followed the Dutch exercise guidelines, which advise 150 minutes of moderate to intense exercise per week, as well as twice-weekly muscle strength exercises.

## Mechanisms Underpinning Plants For Joints Diet

The mucosal origins hypothesis for RA suggests that RA is triggered at the mucosal site [of the gut] in genetically predisposed individuals, and this consequently transfers to the synovial [fluid in] joints. Basically disruption of the gut mucosal barrier triggers processes that cause inflammation in the joint synovial fluids.

We know through previous research that fiber protects our gut barrier and therefore reduces inflammation. The PFJ intervention is a very high-fiber program, so the hypothesis is that it might help strengthen the gut mucosal barrier.

During the study, the researchers measured changes that occurred in the gut mucosal barrier function. They found significant improvements in the gut barrier function of the intervention group, and the size of these changes correlated with the size of the clinical improvements in the RA group. After a year of intervention, markers of inflammation started to decrease significantly as well.

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# Teen Cannabis Use Tied to Dramatic Increased Risk for Psychosis

Source: Medscape; Batya Swift Yasgur; May 31, 2024



Teenagers who use cannabis have a dramatic increased risk for a psychotic disorder compared with their counterparts who don't use the drug, new research showed.

Investigators at the University of Toronto, The Centre for Addiction and Mental Health (CAMH), and the Institute for Clinical Evaluative Sciences (ICES), in Canada, linked recent population-based survey data from over 11,000 youngsters to health service use records, including hospitalizations, emergency department (ED) visits, and outpatient visits.

"We found a very strong association between cannabis use and risk of psychotic disorder in adolescence [although] surprisingly, we didn't find evidence of association in young adulthood," lead author André J. McDonald, PhD.

These findings are consistent with the neurodevelopmental theory that teens are especially vulnerable to the effects of cannabis," said McDonald, who conducted the research. Compared with no use, cannabis use was significantly associated with an II-fold increased risk for psychotic disorders during adolescence, although not during young adulthood.

When the researchers restricted the outcome to hospitalizations and ED visits only, the strength of association "increased markedly" during adolescence, with a 26-fold higher association in cannabis users than in nonusers. However, there was no meaningful change during young adulthood.

"Many have hypothesized that adolescence is a more sensitive risk period than adulthood for the effect of cannabis use on psychotic disorder development, yet prior to this study, little epidemiologic evidence existed to support this view," the authors wrote.

# Does the World's Most Used Herbicide Harm the Human Body?

Source: Life (Basel). 2022 May; 12(5): 707. Published online 2022 May 9. doi: 10.3390/life12050707



Glyphosate is the world's most widely used agrochemical. Its use in agriculture and gardening has been proclaimed safe because humans and other animals do not have the target enzyme glyphosate disrupts. However, increasing numbers of studies have demonstrated risks to humans and animals because the metabolic pathway glyphosate disrupts is present in many of the good bacterial in our gut, skin, and mucous membranes. These good bacteria function as part of our immune system. This <u>research</u> looked at the potential effect of glyphosate on healthy human microbiota. Our results demonstrate that more than one-half of human microbiome are intrinsically sensitive to glyphosate.

Glyphosate (N-(phosphonomethyl)glycine) is the most commonly used herbicide in agriculture, horticulture, silviculture, recreational areas, and home gardens globally. The popularity of glyphosate-based herbicides (GBHs) has been associated with an increased detection of glyphosate and its by-products in soil and water. Here, we perceive the risk that glyphosate may damage beneficial microbes that are essential to human well-being.

Humans may be exposed to glyphosate directly when applying glyphosate-based herbicides or indirectly via drinking water and foodstuffs containing glyphosate residues. In traditional agricultural practices, glyphosate-based herbicides are applied before planting and after harvest, but in genetically modified glyphosate-resistant crops (eg. some soya), they can be used during the growing season. In addition, glyphosate-based herbicides are commonly used to dry out traditional grain and seed crops before harvest. These practices include the risks of inhalation and skin exposure to the applicator. Residues in ingested products may lead to the exposure of human gastrointestinal and urogenital systems' microbiota to glyphosate and its metabolites. Human cells are presumably not directly affected by glyphosate. However, the effect of glyphosate on beneficial microbiota has been suggested in several studies of insects, plants, and mammals. In this study 101 common human gut bacterial species where exposed to glyphosate. Researchers found that 54% of most common gut bacterial species are intrinsically sensitive to glyphosate. Many of the gut bacteria that are resistant to glyphosate have previously been associated with irritable bowel syndrome. Gastrointestinal issues such as irritable bowel syndrome and inflammatory conditions have been speculated to arise from a disruption in gut bacterial diversity resulting from glyphosate exposure via the foodstuffs frequently included in a Western diet.

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# Why You Should Increase Fiber and Fermented Food into Your Meals

Source: Harvard. Health; April 26, 2024; by Matthew Solan, Executive Editor, Harvard Men's Health Watch



An F may mean failure in school, but the letter earns high marks in your diet. The two biggest dietary Fs — fiber and fermented foods — are top priorities to help maintain healthy digestion and potentially much more. How can you fit these nutrients into meals? Can this help your gut and overall health?

#### Fiber, fermented foods, and the gut microbiome

The gut microbiome is a composed of bacteria, viruses, fungi, and other microorganisms living in the colon (large intestine). What you eat, the air you breathe, where you live, and many other factors affect the makeup of the gut microbiome, and some experts consider it a hidden organ because it affects many important functions of the body. For example, gut microbiomes help the immune system function optimally, reducing chronic inflammation, keeping intestinal cells

healthy, and providing some essential micronutrients that may not be included in a regular diet.

Your gut communicates with your brain through pathways in the gut-brain axis. Changes in the gut microbiome have been linked with mood and mental health disorders, such as depression and anxiety. However, it's not yet clear that these changes directly cause these types of problems.

We do know that a healthy diet, low in processed foods is key to a healthy gut microbiome. Increasing evidence also suggests that fiber and fermented foods can also play important parts here.

#### Fiber 101

The main role of fiber is to make digestion smoother by softening and adding bulk to stool, helping it pass quickly through the intestines.

But fiber has other benefits for your microbiome and overall health. A high-fiber diet helps keep body weight under control and lowers <u>LDL</u> (bad) cholesterol levels. Research has found that eating enough fiber reduces the risk of heart disease, type 2 diabetes, and some cancers.

#### Types of fiber

There are two types of fiber: insoluble (which helps you feel full and encourages regular bowel movements) and soluble (which helps lower cholesterol and blood sugar). However, recent research suggests people should focus on the total amount of fiber in their diet, rather than type of fiber.

If you're trying to add more foods with fiber to your diet, make sure you ease into new fiber-rich habits and drink plenty of water. Your digestive system must adapt slowly to avoid gas, bloating, diarrhea, and stomach cramps caused by eating too much too soon. Your body will gradually adjust to increasing fiber after a week or so.

#### Fermented foods 101

Fermented foods contain both prebiotics (ingredients that create healthy changes in the microbiome) and probiotics (beneficial live bacteria). Both prebiotics and probiotics help maintain a healthy gut microbiome.

#### What to know about fermented foods

Besides helping with digestion and absorbing vital nutrients from food, a healthy gut supports your immune system to help fight infections and protect against inflammation. Some research suggests that certain probiotics help relieve symptoms of gut-related conditions like inflammatory bowel disease and irritable bowel syndrome, though not all experts agree with this.

Many fermented foods undergo <u>lacto-fermentation</u>, a process where natural bacteria feed on the sugar and starch in the food, creating lactic acid. Not only does this process remove simple sugars, it creates various species of good bacteria such as Lactobacillus or Bifidobacterium. But keep in mind that some foods undergo steps that remove probiotics and other healthful microbes, as with beer or wine. Processes such as baking or canning can also make probiotics inactive.

The exact amounts and specific strains of bacteria in fermented foods vary depending on how they are made. In addition to probiotics, fermented foods may contain other valuable nutrients like enzymes, B vitamins, and omega-3 fatty acids.

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# **Red Flags for Early-Onset Colorectal Cancer Identified**

Source: Medscape; Megan Brooks; June 04, 2024;

Patients with <u>early-onset colorectal cancer</u> (EOCRC) often present with blood in the stool or abdominal pain, symptoms frequently overlooked in younger populations, leading to delays in diagnosis of 4-6 months, a <u>new analysis</u> showed.

As the number of cases of EOCRC, defined as colorectal cancer (CRC) diagnosed before age 50, continues to rise, early detection has become increasingly important. Improved recognition of presenting signs and symptoms associated with EOCRC could lead to a more timely diagnosis and better clinical outcomes.

In a systematic review and meta-analysis of 81 studies with 24.9 million EOCRC cases, researchers sought to determine the most common presenting signs and symptoms, their association with EOCRC risk, and the time from presentation to diagnosis.

#### **TAKEAWAY:**

Blood in the stool (Hematochezia) was the most common presenting sign/symptom, followed by abdominal pain. Altered bowel habits, which included constipation, diarrhea, and alternating bowel habits, were the third most common presenting sign/symptom, followed by unexplained weight loss.

The likelihood of EOCRC was estimated to be fivefold to 54-fold higher with hematochezia and 1.3-fold to six fold higher with abdominal pain.

The mean time from sign or symptom onset to EOCRC diagnosis was 6.4 months (range, 1.8-13.7 months).

#### IN PRACTICE:

"These findings and the increasing risk of CRC in individuals younger than 50 years, highlight the urgent need to educate clinicians and patients about these signs and symptoms to ensure that diagnostic workup and resolution are not delayed.

#### Clinic Services

- Chiropractic Care
- Laser Therapy
- Electrical Therapy
- 4. Sports Injury Care
- 5. Custom Foot Orthotics
- Massage Therapy<sup>1</sup>
- 7. Naturopathic Medicine
- 8. Acupuncture
- 9. Kinesiology Services

# Clinic Hours Please note:

Monday 8:00am— 12:00pm 3:30pm - 7:30pm

Tuesday 8:00am— 12:00pm

Wednesday 8:00am— 12:00pm 3:30pm -7:30pm

Thursday 3:30pm –7:30pm

Friday 8:00am – 12:00pm

1. Massage therapy is available outside core office hours.

#### **Announcements**

- Check out our WEBSITE at www.alliancechiroandwellness.com. You can find blogs, archived issues of our newsletter, and other clinic information.
- All appointment requests should be made by calling the clinic at 905-648-0661. We do not accept appointment cancellations, bookings, or reschedules via our web site. Please note we need to know what you are being seen for to book the appropriate duration of time.
- Like us on Facebook! To see the latest in health news, research, updates, and announcements, check us out at
  - www.facebook.com/AllianceChiropracticandWellnessClinic
- If you want to see a topic covered in an upcoming newsletter, blog, or social media post send an email to info@alliancechiroandwellness.com
- We have launched on Instagram! Give us a follow @alliance\_chiropractic\_

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