

## Managing Chronic Pelvic Pain through Diet

### Inflammation & Chronic Pain

Inflammation is one of the body's natural ways of protecting itself. It can help fight off infections, promote healing, and signal to us that something is wrong (University of Wisconsin, 2007). Unfortunately, inflammation can also be harmful to us. We see this when the immune system mistakenly attacks normal tissue as it does in autoimmune diseases, heart disease, Alzheimer's, and cancer (Weil, 2005).

**Inflammation is a contributor to chronic pain.** Inflammation is also a contributor to conditions such as allergies, asthma, diabetes, and irritable bowel syndrome (IBS).

**Following an anti-inflammatory diet can help to reduce pain!**

### Anti-Inflammatory Diet & Chronic Pain

For women who consume a diet of 2000 calories per day, the distribution of calories should be (Weil, 2013):

- 40-50% carbohydrates (160-200g/day), especially complex carbohydrates
- 30% fat (67g/day), especially mono- and poly-unsaturated fats
- 20-30% protein (80-120g/day), especially low-fat, vegetable proteins

It is also suggested to use a daily multivitamin and multimineral supplement that includes:



- Vitamin C, 200 mg/day
- Vitamin D, 2000 IU/day
- Vitamin E, 400 IU/day
- Folic acid, 400 mcg/day
- Selenium, 200 mcg/day
- Calcium citrate, 500-700 mg/day
- Beta-carotene, 10000-15000 IU/day
- Coenzyme Q10, 60-100 mg/day
- Fish oil (EPA and DHA, Omega-3 fatty acids), 2-3 g/day
- Low-glycemic foods

**Omega-3 fatty acids.** Omega-3s are important in helping to reduce inflammation and pain, especially for conditions such as joint/muscle pain and IBS. Omega-3s also have the benefit of reducing the amount of non-steroidal anti-inflammatory medications (NSAIDs) needed to manage pain (Bell, Borzan, Kalso, & Simonnet, 2012).

**Low-glycemic foods.** It is important to include foods that are considered low on the glycemic index (low GI). Low GI foods contain less sugar and are therefore less likely to contribute to the production of insulin in the body. When less insulin is released by the pancreas, there is less inflammation and pain (Weil, 2005).

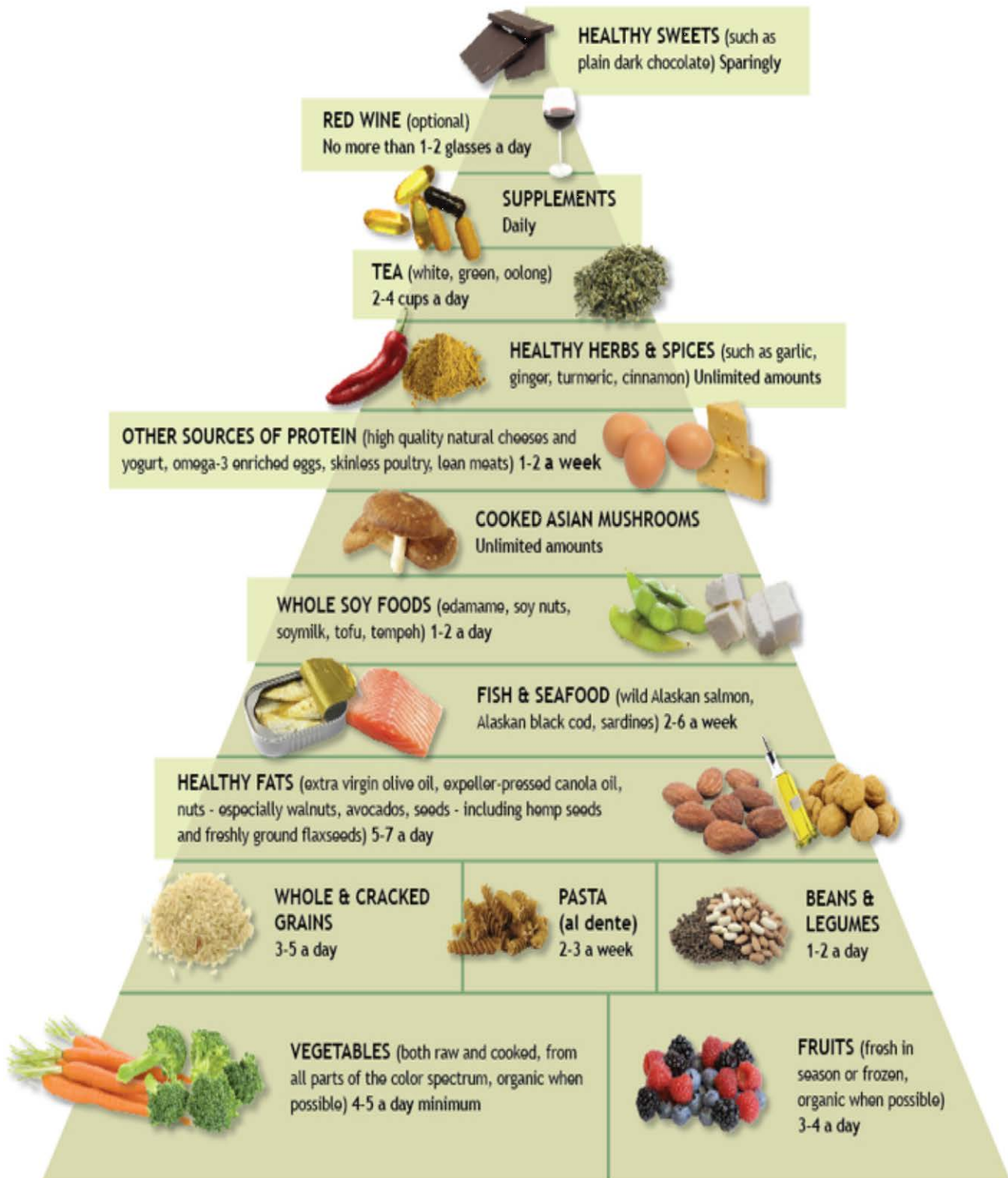
## Anti-Inflammatory Diet to Help Ease Chronic Pain

Try to Eat More of...	Try to Eat Less of...
<input checked="" type="checkbox"/> Organic foods	Processed foods
<input checked="" type="checkbox"/> Vegetable proteins: <ul style="list-style-type: none"> <li>• soybeans, beans, lentils, legumes</li> <li>• nuts, seeds</li> <li>• brightly coloured fruit and vegetables</li> </ul>	Animal and dairy proteins (they contain arachidonic acid which increases inflammation): <ul style="list-style-type: none"> <li>• meat, especially red meat</li> <li>• dairy (except high quality cheese and yogurt)</li> </ul>
<input checked="" type="checkbox"/> Complex carbohydrates: <ul style="list-style-type: none"> <li>• whole grains</li> <li>• brown rice</li> <li>• bulgur wheat</li> <li>• beans</li> <li>• sweet potatoes</li> <li>• winter squashes</li> <li>• low GI vegetables</li> <li>• low GI (e.g., berries, cherries, apples, pears)</li> </ul>	Simple carbohydrates: <ul style="list-style-type: none"> <li>• gluten and wheat</li> <li>• white flour products</li> <li>• crackers, chips, pastries, other snack foods</li> <li>• cereal made from rice or corn</li> <li>• instant rice, white rice, white potatoes</li> <li>• processed foods, fast food</li> <li>• products made with high fructose corn syrup</li> <li>• sweetened drinks, alcohol</li> <li>• high GI fruits and juices (tropical fruit))</li> </ul>
<input checked="" type="checkbox"/> Monounsaturated or polyunsaturated fats: <ul style="list-style-type: none"> <li>• avocados</li> <li>• nuts and nut butters (especially walnuts, cashews, almonds)</li> <li>• extra-virgin olive oil or expeller-pressed, organic canola oil</li> </ul>	Saturated and trans fats: <ul style="list-style-type: none"> <li>• butter, cream, high-fat cheese</li> <li>• fatty meats, red meat</li> <li>• products made with palm kernel oil</li> <li>• try for a ratio of 1:2:1 of saturated to monounsaturated to polyunsaturated fat</li> </ul>
<input checked="" type="checkbox"/> Foods high in fibre: <ul style="list-style-type: none"> <li>• complex carbohydrates, such as:</li> <li>• low-glycemic fruits and vegetables</li> <li>• cruciferous vegetables (cabbage family)</li> <li>• beans, legumes, nuts, seeds</li> <li>• whole grains</li> </ul>	Partially hydrogenated oils: <ul style="list-style-type: none"> <li>• safflower or sunflower oils (except for organic, high-oleic, expeller-pressed sunflower and safflower oil)</li> <li>• oils from corn, cottonseed, peanut, soy, grapeseed, and mixed vegetables</li> <li>• margarine, vegetable shortening</li> </ul>
<input checked="" type="checkbox"/> Foods high in Omega-3 fatty acids: <ul style="list-style-type: none"> <li>• cold water fish (salmon, sardines, herring, mackerel) and fish oils</li> <li>• ground flax seeds or flax oil</li> <li>• leafy green vegetables</li> <li>• Omega-3 fortified eggs (in moderation)</li> <li>• walnuts</li> </ul>	Foods high in omega-6 fatty acids: <ul style="list-style-type: none"> <li>• red meat</li> <li>• processed foods</li> <li>• fast foods</li> </ul>
<input checked="" type="checkbox"/> Foods high in antioxidants: <ul style="list-style-type: none"> <li>• yellow, orange, and red vegetables</li> <li>• dark leafy greens (spinach, Romaine lettuce)</li> <li>• citrus fruits (except for endometriosis or IC)</li> <li>• black and green teas</li> <li>• vegetables in the allium family (onions, garlic)</li> </ul>	Highly processed foods <ul style="list-style-type: none"> <li>• foods with a long shelf life (chips, crackers)</li> <li>• alcohol</li> </ul>
<input checked="" type="checkbox"/> Spices that contain anti-inflammatory compounds: <ul style="list-style-type: none"> <li>• ginger, cloves, nutmeg</li> <li>• rosemary, oregano</li> <li>• turmeric</li> <li>• cayenne</li> </ul>	Foods that are more likely to trigger an intolerance: <ul style="list-style-type: none"> <li>• dairy</li> <li>• wheat</li> <li>• eggs</li> <li>• artificial flavours or colours (Aspartame, dyes)</li> </ul>
<input checked="" type="checkbox"/> Herbs with anti-inflammatory properties: <ul style="list-style-type: none"> <li>• Boswellia, willow bark, feverfew</li> </ul>	Preservatives: <ul style="list-style-type: none"> <li>• MSG, sulphites, sulphates</li> </ul>
<input checked="" type="checkbox"/> Beverages: <ul style="list-style-type: none"> <li>• water, tea (white, green, black, Oolong)</li> </ul>	Beverages: <ul style="list-style-type: none"> <li>• tropical fruit juices, alcohol, coffee</li> </ul>

Adapted from: Rakel (2007); Rakel and Rindfleisch (2005); Weil (2005); and Mills & Vernon (2002)

## Dr. Weil's Anti-Inflammatory Food Pyramid

**Note:** Food items at the bottom of the pyramid are to be consumed in larger quantities than items at the top of the pyramid.



From: <http://www.drweil.com/drw/u/ART02995/Dr-Weil-Anti-Inflammatory-Food-Pyramid.html>

## Special Considerations: Endometriosis, Bladder, and Bowel

### Endometriosis

Dian Shepperson Mills, director of the *Endometriosis and Fertility Clinic* in the UK, has developed a program to reduce "inflammation within the body, improve pain responses, and support estrogen excretion" (Davis, 2010). In addition to pain relief, many women report improvement in their fertility on this diet (Mills & Vernon, 2002).

According to Levett (2008), author of *Recipes for the Endometriosis Diet*,

"There are lots of women who are seeing great improvements in their symptoms of endometriosis...with a huge reduction of the symptoms of pain, a reduction of inflammation, reduction of pain with their periods, less intestinal problems and an increase in energy levels" (p. 4).

In addition to the anti-inflammatory suggestions on the previous page, the Levett (2008) recommends the following to help improve pain due to endometriosis:

Add	Avoid or Reduce
Magnesium to relax the smooth muscles found in the uterus and intestines	Foods that may contain estrogenic pesticides (e.g., PCBs and dioxins)
Vegetables with B vitamins (especially cruciferous vegetables) to reduce stress in the body	Wheat gluten (Mills & Vernon suggest eliminating it for one month to see if any improvement occurs)
Fibre (30g/day) to break down circulating estrogens	Citrus fruit, as it can alter how your body eliminates estrogen
Iron-rich foods to replace any iron lost during heavy menstrual bleeding	Foods that produce digestive issues, such as dairy (if you are intolerant), as they can cause an immune system response and create inflammation
4-6 8oz glasses of water per day	

### Interstitial Cystitis

Interstitial cystitis (IC) is a type of bladder pain condition that commonly occurs along with endometriosis or other forms of pelvic pain. In general, following an anti-inflammatory diet will be helpful for IC. However, there are a few special considerations when you have an inflammation of the bladder (Children's and Women's Hospital & Health Centre of BC, 2012).

#### Bladder irritants to avoid:

- Coffee (including decaffeinated) and tea
- Carbonated beverages and soft drinks, especially those with caffeine and including diet sodas
- Alcoholic beverages, including beer and wine
- Large quantities of citrus fruits and juices, including tomatoes and tomato-based products, strawberries, pineapple, peaches, and grapes.
- Large quantities of apples and apple juice, cantaloupe, guava, and plums.
- More than 1 cup of cranberry juice per day
- Spicy foods, including hot chilli peppers
- Caffeine, including in medications and chocolate
- More than 500mg per day of vitamin C
- Vitamin B complex (unless it is buffered)
- Vinegar and other pickled (fermented) foods
- Sugar, honey, and corn syrup are rare, but possible irritants
- Artificial sweeteners (Equal, Nutrasweet, Splenda, etc.)
- Cigarettes and tobacco products

## Irritable Bowel Syndrome

Irritable bowel syndrome (IBS) is a condition that affects the large intestine and causes symptoms such as cramping, abdominal pain, bloating, gas, diarrhea, and constipation. The symptoms of IBS can usually be managed by making certain lifestyle changes such as adopting an IBS diet and reducing stress levels (Mayo Clinic, 2011).

Try to Add	Try to Avoid or Reduce
Fibre, increasing it gradually over a period of a few weeks: <ul style="list-style-type: none"> <li>• Whole grains</li> <li>• Vegetables</li> <li>• Fruits</li> <li>• Beans</li> </ul>	Foods/items known to cause gas: <ul style="list-style-type: none"> <li>• Carbonated beverages</li> <li>• Raw fruits and vegetables</li> <li>• Sugar-free sweeteners (Sorbitol, Mannitol)</li> <li>• Chewing gum, drinking through a straw</li> </ul>
Some will do better when they limit their dietary fibre and gradually introduce a supplement (Metamucil, Citrucel, etc.) instead, which may cause less gas and bloating.	Caffeine (in beverages, chocolate, and medications)
Smaller, more frequent meals	Alcohol
Water	Dairy products
	High fat foods, highly processed foods, fast food

From: <http://www.mayoclinic.com/health/irritable-bowel-syndrome/DS00106>, 2011

## Summary

Regardless of whether your chronic pain includes endometriosis, IC, or IBS, or a combination of all of these, following an anti-inflammatory diet can help to reduce the intensity of the pain you are experiencing. It is also essential to include lifestyle changes, such as increased activity and exercise as well as stress reduction. Stress reduction helps to calm the nervous system, which can then reduce inflammation and pain.

## References

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