



# ARTHRITIS

Arthritis is joint inflammation causing pain, swelling, stiffness, and deformity, with dozens of different types such as osteoarthritis, gout, and rheumatoid arthritis (RA), the latter being autoimmune.



## Possible Contributing Factors



- Hypochlorhydria (possibly from excess use of antacids)
- Hypothyroidism and/or hyperparathyroidism (promoting build-up of calcification in the joints)
- Excessive calcium supplementation (>600mg) without magnesium, boron, silica, vitamin K2
- Lipopolysaccharide (LPS)-mediated inflammation from gut dysbiosis &/or bacterial overgrowths
- Low zinc needed to make alkaline phosphatase to break down LPS
- Chronic infections: candida, mycoplasma, and proteus (and here) are often implicated in RA
- Liver/gallbladder dysfunction leading to low bile flow and synthesis needed to break down LPS
- Food sensitivities as a result of enhanced intestinal permeability (aka leaky gut)
- Excess or low estrogen (estrogen protects joint health) / post-menopause
- Low cortisol from chronic stress
- Low vitamin D in RA
- Chronic inflammation: sedentary lifestyle, inflammatory diet, smoking
- High fructose intake leading to gout by increasing uric acid production from fatty liver
- Excess wear and tear on the joints / previous joint injuries / obesity
- Regular NSAID drug use & immunosuppressants (can over time exacerbate disease progression)

## Lifestyle & Dietary Recommendations



- Eat a whole foods VPF diet with quality organic proteins, cruciferous vegetables & healthy fats
- Avoid sugar, sweeteners/refined carbs, pro-inflammatory oils (ex. corn, soybean, canola), alcohol
- Eliminate gluten, dairy, nightshade vegetables, and all grains (gluten-containing or not) for minimum 3-4 months followed by a reintroduction one food at a time. Consider a KBMO food sensitivity test.
- 150-180mL cabbage juice for 30 to 60 days to help heal the gut lining
- Introduce a variety of fermented foods to help with gut immunity and microbiome balance
- Quit smoking (all types)
- Increase physical activity to increase range of motion and function; yoga, Pilates, walking
- Get outdoor sunshine daily (vitamin D) and ground (anti-inflammatory) for 10-15+ minutes
- Daily stress reduction: meditation, deep breathing, relaxing baths, journal, delegate more, do less, etc

## Supplement Considerations



- Anti-inflammatories
  - GLA in the form of borage or evening primrose oil
  - Meriva curcumin, Boswellia & bromelain combo or separate
  - Fish oil (2-6g EPA/DHA)
- Undenatured Type 2 Collagen
- Probiotic that includes *Saccharomyces Boulardii*
- Proteolytic enzymes to help break up the immune complexes (empty stomach)