Rheumatoid Arthritis

Dr. John Bergman

What is Rheumatoid Arthritis?

"Rheumatoid arthritis is a **chronic inflammatory** disorder that can affect more than just your joints. In some people, the condition also can damage a wide variety of body systems, including the skin, eyes, lungs, heart and blood vessels.

An autoimmune disorder, rheumatoid arthritis occurs when your <u>immune system</u>mistakenly attacks your own body's tissues."

Mayo Clinic¹

<u>Symptoms</u>

- Tender, warm, swollen joints
- Joint stiffness that is usually worse in the mornings and after inactivity
- Fatigue, fever and weight loss

Rheumatoid arthritis can affect many non-joint structures, including:

- Skin
- Eyes
- Lungs
- Heart

- Salivary glands
- Nerve tissue
- Bone marrow and Blood vessels
- Kidneys

Prevalence of RA

- RA is the most common chronic disease
- Affects about 1% of the world population
- Affects 1.3 million people in the US



Number of cases per 100,000 people

Causes of RA

- Occurs when your immune system attacks the synovium — the lining of the membranes that surround your joints.
- The resulting inflammation thickens the synovium, which can eventually destroy the cartilage and bone within the joint.

Is this the Cause of RA or is it the result?



Doctors Don't have a Clue

"Doctors don't know what starts this process, although a genetic component appears likely. While your genes don't actually cause rheumatoid arthritis, they can make you more susceptible to environmental factors — such as infection with certain viruses and bacteria — that may trigger the disease."



Mayo Clinic²

We Don't know what causes it but let's medicate you anyways

"There is no cure for rheumatoid arthritis. But recent discoveries indicate that remission of symptoms is more likely when treatment begins early with strong medications known as disease-modifying antirheumatic

drugs (DMARDs` "



Mayo Clinic ³

Medications Used to treat RA

- Nonsteroidal anti-inflammatory drugs (NSAIDs)
- Corticosteroid medications, such as prednisone
- Disease-modifying antirheumatic drugs (DMARDs)
- Biologic Agents: abatacept (Orencia), adalimumab (Humira)



Side Effects of RA Medications

Nonsteroidal anti-inflammatory drugs (NSAIDs)
Ulcers, Tinnitus, stomach irritation, bleeding, heart problems, liver and kidney damage

Corticosteroid medications, such as prednisone

 Bone loss, weight gain, diabetes, cataracts, increased risk of infections suppressed adrenal gland hormone production, memory loss

Side Effects of RA Medications

Disease-modifying antirheumatic drugs (DMARDs)

 Liver and kidney damage, bone marrow suppression, anemia (low red blood cell count) and severe lung infections

Biologic Agents: abatacept (Orencia), adalimumab (Humira)

• Flu-like illness, fever, chills, nausea, headache, high blood pressure, inflammation, liver damage, serious infections, congestive heart failure

The Business of RA

- In 2012 (in the US):
- Hospitalizations for RA (9,100) = \$374 million
- Medical costs = \$22.3 billion
- Direct costs (out of pocket) = \$8.4 billion
- Indirect costs (earning losses, disability payments from employers/government) = \$10.9 billion
- Total costs for patients, employers, family members and the government are estimated to be over \$40 billion

CDC ⁵

What Really Causes RA?

- Here's what we know about RA:
- It's an autoimmune disorder
- There is chronic inflammation
- It's systemic and can affects many different organs
- Affects mainly the synovial membrane
- Mainly occurs between the 4th and 6th decades of life

The Real Cause of RA

- Vaccinations
- Antibiotics
- Medications
- Environmental Toxins
- Toxic, Processed Food
- •A Sedentary Lifestyle
- Chronic Stress: Chemical, Physical, Emotional



Vaccinations

<u>Th1 immunity</u>

- Is responsible for normal reactions to anything in your environment, from pollen to animal dandruff, dust mites, chemicals, food.
- Th1 is kept robust and healthy by your gut flora.
- TH1- cell mediated response from mucus membranes
- If your gut flora is abnormal, your Th1 become increasingly disabled

Th2 immunity

- TH2-vaccines (puncture wound so the body needs an immediate response this is why there is no lifetime immunity from vaccinations, because the proper immune system cells are not built)
- inflammatory reaction = inflammatory cytokines
- Causes allergies and intolerances

49 DOSES OF 14 VACCINES BEFORE AGE 6? 69 DOSES OF 16 VACCINES BY AGE 18?

Before you take the risk, find out what it is.

BIRTH (12 hours)	2 MONTH
Hepatitis B	Diphtheria
	Tetanus
	Pertussis
	Polio
	HIB
	Rotavirus
	Hepatitis B
	PCV

HS **4 MONTHS** Diphtheria Tetanus Pertussis Polio HIB Rotavirus PCV

6 MONTHS Diphtheria Tetanus Pertussis Polio Rotavirus Hepatitis B PCV Influenza

7 MONTHS

Influenza

Diphtheria Tetanus Pertussis Measles Mumps Rubella HIB PCV Varicella Hepatitis A (2)

12 - 18 MONTHS 2 - 6 YEARS Diphtheria Tetanus Pertussis Polio Measles Mumps Rubella Varicella Influenza (5)

7-18 YEARS Diphtheria Tetanus Pertussis Influenza (12) HPV (3) Meningococcal (2)



The Hepatitis B Vaccination

The Journal of Autoimmunity ¹⁷

"During the 1980s, genetically engineered hepatitis B vaccines (HBVs) were introduced in the United States. A large-series of serious autoimmune conditions have been reported following HBVs, despite the fact that HBVs have been reported to be "generally welltolerated."



The Hepatitis B Vaccination

Adults receiving HBV had significantly increased odds ratios for:

- Multiple Sclerosis
- Optic Neuritis
- Vasculitis
- Arthritis
- Alopecia
- Lupus Erythematosus
- Thrombocytopenia
- Rheumatoid arthritis

The Journal of Autoimmunity ¹⁷



<u>Antibiotics</u>

Kill both beneficial and pathologic bacteria
Upset the delicate balance of your intestinal terrain

"Clinical levels of antibiotics can cause oxidative stress that can lead to <u>damage to DNA</u>, <u>proteins and lipids in</u> <u>human cells</u>"

James Collins, Ph.D. Wyss Institute, Harvard University

Antibiotics

<u>Confined animal feeding operations</u> (CAFO's)

- American factory farms used 29 million pounds of antibiotics in 2009 alone
- Estimated non-therapeutic use of antibiotics in livestock accounted for 70 percent of the total antibiotic use (FDA)





Dangers of Glyphosate

Glyphosate is a very powerful **selective antibiotic** that kills beneficial, but not pathogenic, microorganisms in the soil and intestine.





Residue levels permitted in food are **40 to 800 times** the antibiotic threshold and concentrations shown in clinical studies to damage mammalian tissues.

Glyphosate

Health issues linked to Glyphosate exposure:

- Depression
- Autism
- Parkinson's
- Multiple Sclerosis
- Alzheimer's
- Cancer
- Gastrointestinal diseases
- Obesity
- Cardiovascular disease

- Birth defects
- Skeletal and brain malformations
- DNA damage
- Neurotoxicity
- Reproductive toxicity
- Endocrine disruption
- Infertility
- Allergies

Warning:

From the US Department of Agriculture and the EPA (13)

Processed, slow-release pesticide-laden gluten causes:

- Intestinal permeability
- Imbalanced gut bacteria
- •Immune activation and allergic response
- Impaired digestion
- Damage to the intestinal wall



Artificial Sweeteners

Splenda (Sucralose)

- is a Chlorinated artificial sweetener
- Increases the pH level in your intestines, and
- Reduces the amount of good bacteria in your intestines by 50%

Sucralose has a potent inhibitory effect on your gut bacteria and inactivates digestive protease. It also alters gut barrier function. Journal of Toxicology ²²



The Importance of Microflora

<u>Bacteria</u>

- 80 percent of your immune system resides in your Gut
- Bacteria outnumber your cells 10 to 1
- 100 trillion bacteria—about two to three pounds worth of bacteria
- You should have about 85 percent "good" bacteria and 15 percent "bad."
- Beneficial bacteria keep the bad bacteria and yeasts in check
- Produce nutrients your body needs, such as B vitamins.

The Importance of Microflora

<u>Viruses</u>

- Bacteriophages: beneficial viruses in your body
- Outnumber your body's bacteria 10 to 1
- Roughly 4 Quadrillion viruses in your body

"Viral elements are a large part of the genetic material of almost all organisms,"

"We humans are well over 50 percent viral" Dr. Phillip Sharp, Nobel Prize Winner Center for Cancer Research M.I.T.

Chronic Stress and Rheumatoid Arthritis







Effects of Chronically Elevated Cortisol Levels

- Diminishes cellular utilization of glucose
- Increases blood sugar levels
- Decreases protein synthesis
- Increases protein breakdown that can lead to muscle wasting
- Causes demineralization of bone that can lead to osteoporosis
- Interferes with skin regeneration and healing
- Causes shrinking of lymphatic tissue
- Diminishes lymphocyte numbers and functions

Stress and the Adrenals: Adrenal Fatigue

If the Adrenals are depleted from chronic stress these are the consequences:

- Low body temperature
- Nervousness
- Depression
- Hypoglycemia
- Memory loss
- Osteoporosis
- Weak Immune system
- Inflammatory conditions
- Vertigo and dizziness
- Dry and thin skin
- Weakness
- Chronic fatigue

- Difficulty gaining weight
- Difficulty building muscle
- Irritability
- Confusion and Cognitive Impairment
- Autoimmune hepatitis
- Palpitations
- Low blood pressure
- PMS
- Headaches
- Unexplained hair loss
- Excessive hunger
- Indigestion
- Alternating diarrhea and constipation
- Autoimmune diseases
- Insomnia

Stress and the Thyroid

- Depression
- Heart disease
- Chronic fatigue
- Fibromyalgia
- PMS (premenstrual syndrome)
- Menopausal symptoms
- Muscle and joint pains
- Irritable bowel syndrome
- Autoimmune disease
- High cholesterol
- Irregular Menstruation

- •Low Libido
- Infertility
- •Gum Disease
- •Fluid retention
- •Skin conditions such as acne and eczema

Memory problems

- Poor stamina
- •Weight gain
- Lethargy
- •Poor quality hair and nails
- •Hair loss
- •Cold hands and feet
- Constipation

The First Step: Avoid the Following

- Vaccinations
- Antibiotics
- Medications
- Environmental Toxins
- Non-Organic, GMO Food
- Chronic Stress



Proper Nerve Supply

Benefits of Chiropractic Care

- Alleviates pain
- Boosts Productivity
- Improves quality of life
- Improves Cognitive Function
- Reduces Dependency on Medication
- Improves quality of Sleep
- Reduces stress
- Boosts your Immunity

According to: The Spine Journal Journal of Vertebral Subluxation Research Journal of Manipulative and Physiological Therapeu



Proper Exercise

Regular Exercise helps you:

- Get high-quality sleep
- Strengthens your Immune System
- Improve your brain function
- Prevent and relieve chronic pain
- Improve your Emotional health
- Improves blood circulation and cell
- Stimulates the Parasympathetic Nervous System



Optimize Your Vitamin D levels

- UVB exposure from the Sun is the best way to optimize your vitamin D levels
 - At least 20 minutes of sun exposure daily during mid day
 - Your shadow shouldn't be longer than your height
- Most regions of the planet don't get proper sunlight for 6 months out of the year
- <u>Vitamin D3</u> supplementation during the winte
- Adults required about **8,000 IUs per day**



<u>Vitamin D</u>

Vitamin D Deficiency is linked to:

- Digestive disorders
- Skeletal disorders including osteoporosis
- Depression, mental disorders
- Neurodevelopmental disorders (Autism)
- Brain Dysfunction, dementia and Alzheime
- Chronic infections
- Cardiovascular disease
- All types of Cancer
- Autoimmune Diseases
- Premature Aging





Vitamin D and RA

"Vitamin D deficiency is highly prevalent in RA patients and is associated with higher disease activity and worse quality of life." Journal of Clinical Rheumatology ⁶

"Supplementation of vit D in RA patients with persisting disease activity and vit D deficiency contributed to significant improvement in disease activity within a short duration."

International Journal of Rheumatic Diseases 7

"In conclusion, a decreased level of Vit D is a risk factor for the recurrence of RA."

Experimental Therapeutic Medicine⁸

Vitamin D and Vitamin K2

- Vitamin K2 is essential for proper utilization of vitamin D
 Sources of Vitamin K2
- Grass-fed organic animal products (eggs, butter, dairy)
- Fermented foods
- Certain cheeses (Brie, Gouda)





Vitamin K2 and RA

"Vitamin K2 is reported to induce not only bone mineralization of human osteoblasts and apoptosis of osteoclasts, but also **apoptosis of rheumatoid arthritis** (RA) synovial cells"

Modern Rheumatology Journal ²⁰



Consequences of Magnesium Deficiency:

- Hormone imbalance and PMS
- Unexplained fatigue and Chronic Fatigue
- Weakness
- Abnormal heart rhythms
- Muscle spasms and twitching
- Depression, anxiety, panic attacks
- Bowel disorders
- Heart disease
- Insomnia
- Headaches and Migraines
- Tooth decay
- Blood Clots

- Osteoporosis
 - Raynaud's syndrome
- Musculoskeletal conditions
- Neurological disorders
- Kidney Disease
- Diabetes
- Fibromyalgia
- Asthma
- Hypertension
- Seizures
- Coronary Spasms
- Personality changes

Sources of Magnesium

- Dark Leafy Greens (Raw Spinach)
- Nuts and Seeds (Squash/Pumpkin Seeds)
- Fish (Mackerel)
- Beans and Lentils
- Whole Grains (Brown Rice)
- Avocados
- Bananas
- Dried Fruit (Figs, prunes, dates, raisins)
- Cacao (Dark Chocolate)





- Also Known as: •Nigella Sativa
- Roman coriander
- Black sesame
- •Black cumin
- Black caraway
- •Onion seed



Black Seed and RA

This study indicates that Nigella sativa could improve inflammation and reduce oxidative stress in patients with RA."

Journal of Phytomedicine ¹⁸

"Abundant evidence indicates the involvement of T lymphocytes in the induction and/or protection of rheumatoid arthritis (RA). We aimed to investigate the modulatory effect of Nigella sativa (NS) oil on the selected T cell subset percentage in females with RA."

"This study gives strength to the potential relevance of NS in clinical management of RA through modulation of T lymphocytes."

Journal of Immunology Investigations¹⁹

A Health Microflora and RA

From the Journal of Nature Medicine ⁹

- Dysbiosis was detected in the gut and oral microbiomes of RA patients
- Transport and metabolism of iron, sulfur, zinc and arginine were altered in the microbiota of individuals with RA

"Our results establish specific alterations in the gut and oral microbiomes in individuals with RA"

Probiotics and RA

"Lactic acid-producing bacteria (LAB) probiotics demonstrate immunomodulating and anti-inflammatory effects and the ability to lessen the symptoms of arthritis in both animals and humans."

Results of Patients after receiving the Probiotic for 6 weeks:

- Improved pain scores
- Less Disability
- Reduced C-reactive protein (reduced inflammation)
- Were able to walk two miles and participate in daily activities

A Healthy Diet and RA

"An elemental diet for 2 weeks resulted in a clinical improvement in patients with active rheumatoid arthritis, and was as effective as a course of oral prednisolone 15 mg daily in improving subjective clinical parameters. This study supports the concept that rheumatoid arthritis may be a reaction to a food antigen(s) and that the disease process starts within the intestine." Phytotherapy Research Journal ¹¹

• An elemental diet is a diet consisting of liquid nutrients composed of amino acids, fats, sugars, vitamins and minerals.

Fish Oil and RA

- Supplementation of Fish oil:
- Decreased morning stiffness
- Decreased pain and swelling



- Improved activity level and quality of life
- Patients were able to reduce or eliminate their use of NSAIDs

-Studies were done with only one capsule per day Advances in Therapy Journal,

Journal of Rheumatology,

British Journal of Rheumatology ¹²⁻¹⁴

Fish Oil and RA

"Western diets are deficient in omega-3 fatty acids, and have excessive amounts of omega-6 fatty acids compared with the diet on which human beings evolved and their genetic patterns were established.

Excessive amounts of omega-6 polyunsaturated fatty acids (PUFA) and a very high omega-6/omega-3 ratio, as is found in today's Western diets, promote the pathogenesis of many diseases, including cardiovascular disease, cancer, and inflammatory and autoimmune diseases, whereas increased levels of omega-3 PUFA (a low omega-6/omega-3 ratio) exert suppressive effects."

(Journal of Biomedicine and Pharmacotherapy)

Turmeric and RA

"Curcumin treatment may help establish a microenvironment in which the effects of proinflammatory cytokines are antagonized, thus facilitating chondrogenesis of MSC-like progenitor cells in vivo. This strategy may support the regeneration of articular cartilage."



earch and Therapy ²¹

Turmeric and RA

This study investigated the mechanisms through which curcumin exerts its anti-proliferative action in the synovial fibroblasts obtained from patients with RA. **Exposure of the** synovial fibroblasts to curcumin resulted in growth inhibition and the induction of apoptosis"

"Furthermore, curcumin decreased the expression levels of the cyclooxygenase (COX)-2 mRNA and protein without causing significant changes in the COX-1 levels, which was correlated with the inhibition of prostaglandin synthesis. These results show that curcumin might help identify a new therapeutic pathway against hyperplasia of the synovial fibroblasts in RA."

The 5 Keys to Health and Healing



Proper nerve supply



Regular Exercise



Proper Nutrition



Sufficient Rest



Prayer and Meditation

www.owners-guide.com





Free 7 day Trial Free access if You Are a Bergman Family Chiropractic Patient

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