



Arthritis Treatment and Mobility Optimization Protocol

The following treatment algorithm has helped our patients with arthritis to achieve healthy, active lifestyles and control their symptoms. Treatment is individualized and based upon your specific situation and needs.

Mild Arthritis

- A) Lifestyle Changes
 - 1) Weight control if overweight
 - Diet (see Appendix)
 - 2) Exercise/Activity Optimization
 - Range of Motion/Strength
 - Low-impact aerobic exercises (Exercise Bicycle, Elliptical, Pool)
 - Upper body exercises
 - 3) Activity Modifications
 - Avoid aggravating activities
 - Cross-training
- B) Mild Analgesics
 - 1) Acetaminophen (Tylenol)
 - 2) Anti-inflammatory (Ibuprofen, Naproxen)
 - 3) Ice after strenuous activities or sports
- C) Physical Therapy
 - 1) Optimize Range of Motion
 - 2) Stretching
 - 3) Strengthening
 - 4) Low-impact exercises
 - 5) Develop/Optimize regular Home Exercise Routine

Moderate Arthritis

- A) Lifestyle Changes
 - 1) Weight control if overweight
 - Diet (see Appendix)
 - 2) Exercise/Activity Optimization
 - Range of Motion/Strength
 - Low-impact aerobic exercises (Exercise Bicycle, Elliptical, Pool)
 - Upper body exercises
 - Ambulatory aids (e.g. Cane)
 - 3) Activity Modifications
 - Avoid aggravating activities
 - Discontinue high-impact sports/activities
 - Substitute/Cross-train
- B) Moderate Analgesics
 - 1) Anti-inflammatory (Celebrex, Meloxicam, Naproxen)
 - 2) Ice after strenuous activities
 - 3) Knee injections
 - Steroids
 - Synthetic lubricant (Hyaluronic acid)
- C) Physical Therapy
 - 1) Optimize Range of Motion
 - 2) Stretching
 - 3) Strengthening
 - 4) Low-impact exercises
 - 5) Develop/Optimize regular Home Exercise Routine

Severe Arthritis

- A) Lifestyle Changes
 - 1) Weight control if overweight
 - Diet (see Appendix)
 - 2) Exercise/Activity Optimization
 - Range of Motion/Strength
 - Low-impact aerobic exercises (Exercise Bicycle, Elliptical, Pool)
 - Upper body exercises
 - Ambulatory aids (e.g. Cane)
 - 3) Activity Modifications
 - Avoid aggravating activities
 - Consider change in occupation
 - Permanent work restrictions
 - Permanent change in recreation and sports
- B) Moderate Analgesics
 - 1) Anti-inflammatory (Celebrex, Meloxicam, Naproxen)
 - 2) Periodic Tramadol as needed
 - 3) Knee injections
 - Steroids
- C) Physical Therapy: Optimize ROM, Consider bracing
- D) Consider Surgical Options: Total or Partial Knee Replacement

Appendix: Diet

- **4:1 Rule:** For every pound of weight loss, there's up to 4-6 lbs. less pressure on the knee/lower extremities.
- Increase consumption of **Whole Foods in their Natural State (Fruits/Vegetables)**
- Limit consumption of processed foods with preservatives (e.g. boxed and canned goods)
- Increase consumption of **Foods Higher in Unsaturated Fat and lower in saturated fat**
 - > Chicken, Tofu, Fish, Canola oil, Olive oil, and Nuts: Effective for delivery of protein and unsaturated fats
 - > Limit consumption of foods high in saturated fat with little nutritional value
- **Limit/Avoid soft drinks** and fluids containing large amounts of sugar.
- **Counseling:** For Education and help with Lifestyle Changes (Dietician, Nutritionist, Weight Watchers, Hospital-based programs)