



Unleashing Arthritis Mobility



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Arthritis is a collective term that describes over 100 different conditions that affect the joints and which lead to pain, stiffness, swelling, and decreased range of motion. The two most common forms of arthritis are Osteoarthritis (OA) and Rheumatoid Arthritis (RA), with OA affecting nearly 600 million people worldwide.*

DIFFERENCES BETWEEN RA AND OA

Rheumatoid Arthritis is an autoimmune disorder which causes your immune system to attack the synovium (lining of a joint) resulting in pain and inflammation. Osteoarthritis is a degenerative joint disease which entails the protective cartilage (that cushions the joints) wearing away and results in bone rubbing against bone. This causes pain, stiffness, and reduced movement. Although OA can damage any joint, the condition most commonly affects joints in the knees, hips, shoulders, hands, and spine.

STAGES OF OA

OA-related pain tends to develop gradually and intermittently over several months or years. OA unfolds in four key stages:

• Stage 1 - Early onset

Minimal cartilage loss or bone spur formation. Occasional stiffness and discomfort are mostly triggered by vigorous activities.

• Stage 2 - Mild

Cartilage deterioration and bone spurs become more pronounced, joint space narrowing can cause more stiffness and pain, impairing movements.

• Stage 3 - Moderate

Significant cartilage loss, joint space narrowing and bone spurs (osteophytes) develop which cause more pain, stiffness and restrict daily activities like lifting arms overhead, alternating steps, and getting up from sitting.

• Stage 4 - Severe

Severely damaged cartilage with intense pain and limited movement which make daily activities difficult or impossible.

The progression of arthritis can vary significantly from one person to the next. Although the damage to joints can't be reversed, physical therapy plays a crucial role in managing symptoms and improving quality of life.

STAGES AND PAIN CORRELATION

X Ray imaging that shows structural damage on a joint does not necessarily correlate directly to the amount of pain someone experiences. OA-related pain does not stem only from physical wear and tear of bone rubbing on bone. It is

also due to muscles weakening as a result of one's natural human instinct to reduce movement when a body part hurts. The compounding effect is that weakened muscles reduce support of the joints which, in turn, causes instability and more pain.

RISK FACTORS

- Multiple factors determine an individual's risk for developing OA, including the following:
- Age: increased incidence with aging.
- Obesity: excess weight increases stress on weight-bearing joints.
- Genetics: family history of OA can increase risk.
- Previous joint injuries: past trauma can predispose joints to OA.
- Overuse: repetitive stress on specific joints.

KEY FACTORS CONTRIBUTING TO PAIN IN OA

Several factors cause or contribute to OA-associated pain, including the following:

Cartilage breakdown: the cartilage that cushions the joints deteriorates. This breakdown leads to increased friction between the bones during movement, and results in pain.

Bone changes: with the loss of cartilage, the underlying bone can become exposed and may develop bone spurs (osteophytes) in response to increased stress. These changes can lead to discomfort and pain.

• Inflammation of the synovial membrane (which lines the joints) which leads to increased production of synovial fluid that further contributes to discomfort.

• Biomechanical factors: misalignment or instability in joint mechanics can increase stress on the cartilage and other structures, which exacerbate pain.

• Nerve involvement: as the disease progresses, nerves surrounding the joints may become more sensitized, which causes an enhanced perception of pain.

Overall joint function: reduced range of motion and joint stiffness can occur as OA advances, which contributes to pain particularly during activities that require joint movement.

ROLE OF PHYSICAL THERAPY IN OA MANAGEMENT

Physical therapy is the most recommended nonpharmacological and nonsurgical treatment for musculoskeletal diseases, especially OA.** Physical therapy can aid in symptom management and improve quality of life during each stage of OAs progression through:

1. Assessment and personalized rehabilitation plans

A physical therapist will conduct a detailed assessment of the patient's physical condition, including strength, flexibility, and functional ability. Based on this assessment, the physical therapist will develop a personalized rehabilitation and exercise plan to address the patient's specific needs.

2. Pain management techniques

Physical therapists employ modalities such as heat, ice, ultrasound, electrical stimulation and manual techniques to alleviate pain.

3. Exercise prescription

Physical therapists develop personalized exercise plans to address several exercise modalities (and combinations thereof) depending on the patient's individual assessed needs:

- Strengthening exercises: focus is low-impact exercises to strengthen the muscles surrounding the joints without placing undue stress on them, including use of resistance band and light weights.
- Flexibility exercises: focus is on stretching routines to improve joint range of motion and decrease stiffness.
- Balance exercises for stability, joint protection and to prevent falls.
- Aerobic conditioning: focus is on activities like walking, swimming or cycling to enhance cardiovascular health while being gentle on the joints.
- Neuro-muscular training (mind-body techniques): focus is on balance and stability drills, hand-eye coordination to improve balance, help with improved alignment, and improve daily activities.

4. Education and self-management

Physical therapists educate patients about self-management techniques, including joint protection strategies and activity modification, to prevent exacerbation of OA symptoms.

5. Functional training

Physical therapists work with patients to develop strategies for daily activities to



minimize pain and maximize productivity.

While OA is a progressive condition, a combination of natural movement therapies, lifestyle modifications, and nutrition can help manage symptoms and pain, and maintain daily functioning. It's crucial for individuals with OA to consult healthcare professionals for personalized treatment plans that address their specific needs and circumstances. Regular follow-ups and adjustments to treatment strategies are key to optimizing outcomes.

* <https://www.healthdata.org/news-events/newsroom/news-releases/lancet-new-study-reveals-most-common-form-arthritis>

** <https://pmc.ncbi.nlm.nih.gov/articles/PMC9614272>

Lize Lubbe is the owner of Lize Lubbe Physical Therapy with its practice located at 190 Goldens Bridge Rd/Rt 22 in Katonah. Learn more by calling 914-875-9430, emailing contact@lizeclubbept.com or visiting www.lizeclubbept.com.



We are hands on PTs!

The professional services of the team at
Lize Lubbe Physical Therapy
provides a wide range of PT rehabilitation services to patients
young & old, including:

- Pre & Post Surgery Rehabilitation
- Sports Injury Rehabilitation
- Neurological Rehabilitation
- Treatment of Musculoskeletal & Orthopedic Conditions
- Postural, Balance & Gait Training
- Pain & Headache Management
- Body Rebalancing Through Diaphragm Breathing & Pelvic Stability



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