Entitlement Eligibility Guideline

Osteoarthritis

Date reviewed: 31 March 2025

Date created: February 2005

ICD-11 **codes:** FA00-03, FA0Z

VAC medical codes:

71830	Acromioclavicular separation/osteoarthritis
71510	Osteoarthritis shoulder joint
71520	Osteoarthritis elbow
71530	Osteoarthritis wrist
71540	Osteoarthritis of all finger joints and joints of thumbs
01346	Osteoarthritis hip
01341	Tibiofemoral osteoarthritis, osteoarthritis knee, patellofemoral osteoarthritis
01348	Osteoarthritis ankle
71537	Osteoarthritis of foot joints

Definition

Osteoarthritis (OA) is a common joint condition that occurs when the protective cushioning between the bones, called cartilage, starts to wear away. This can result in bones rubbing against each other, leading to pain, swelling, and stiffness in the affected joint.

Note: The terms osteoarthritis and osteoarthrosis are used interchangeably in the medical community. For this guideline's purposes, these terms are considered synonymous and will be hereinafter called OA.

Inclusions:

For the purposes of this entitlement eligibility guideline (EEG), the following conditions are included and are considered equivalent. They will hereinafter be referred to as OA:

- osteoarthritis
- osteoarthrosis
- degenerative arthritis
- degenerative joint disease
- non-inflammatory arthritis.

Exclusions:

This EEG excludes OA of the following joints. Please refer to their respective EEG:

- cervical spine
- lumbar spine
- temporomandibular.

This EEG excludes inflammatory joint diseases, including, but not limited to:

- rheumatoid arthritis
- Reiter's syndrome
- psoriatic arthritis
- ankylosing spondylitis (peripheral joints)
- septic arthritis
- arthritis associated with Crohn's disease
- arthritis associated with ulcerative colitis.

This EEG excludes depositional joint diseases, including but not limited to:

- gout and pseudogout
- hemochromatosis
- Wilson's disease
- ochronosis (alkaptonuria)
- hemophilia and other bleeding disorders.

Diagnostic standard

A diagnosis from a qualified physician, nurse practitioner, or physician assistant (within their scope of practice) is required.

- OA is typically diagnosed through a combination of a medical history, physical examination, and diagnostic tests.

- For Veterans Affairs Canada (VAC) entitlement purposes, a disability resulting from OA must be present demonstrated by the presence of relevant signs and/or symptoms of OA on clinical exam.
- Diagnostic imaging as evidence of OA is insufficient alone to establish a diagnosis as the condition must be symptomatic. Imaging findings do not always correlate with symptoms of OA.
- Each claimed joint should be individually diagnosed with OA and should describe the site(s) affected.
- The term OA of the Hand and OA of the Foot may be used where five or more joints in these areas are affected by OA. For VAC entitlement purposes, each hand is considered one joint, and each foot is considered one joint.

Note: For VAC purposes, the diagnosis of "generalized OA" is not accepted. Each joint must be entitled individually, except for multiple joints in the hand and foot.

Anatomy and physiology

A joint is a connection point where two or more bones come together. To make sure the bones can move smoothly without rubbing against each other, there are a few important parts:

- Bones provide structural support, internal organ protection, and attachment points for muscles and tendons to allow movement.
- Cartilage acts as a cushion, covering the end of the bone at the joint. Cartilage ensures bones glide smoothly and prevents rubbing during movement.
- Synovium provides a thin layer that lines the inside of the joint. Synovium makes synovial fluid which lubricates the joint and reduces friction.
- Ligaments are made of strong bands of tissue that connect the bones together at the joint. Ligaments help to give the joint stability and prevent excessive movement.
- Muscles surround the joint and help to control the coordination of movement by the joint.
- The joint capsule is a strong, flexible covering around the joint which holds components in place and provides stability to the joint.

There are several different types of joints within the human body with each type serving different purposes and allowing various types of movement. The main types of joints, with examples, are outlined below:

- Hinge joints allow movement in only one direction, such as bending and straightening. Examples include the knee and elbow joints.
- Ball-and-socket joints: allow a wide range of movement in many directions, including rotation. The rounded end of one bone fits into a cup-like socket of another bone. Examples include the hip and shoulder joints.
- Pivot joints allow bones to rotate around each other. Examples include joints in the neck and in the forearm.

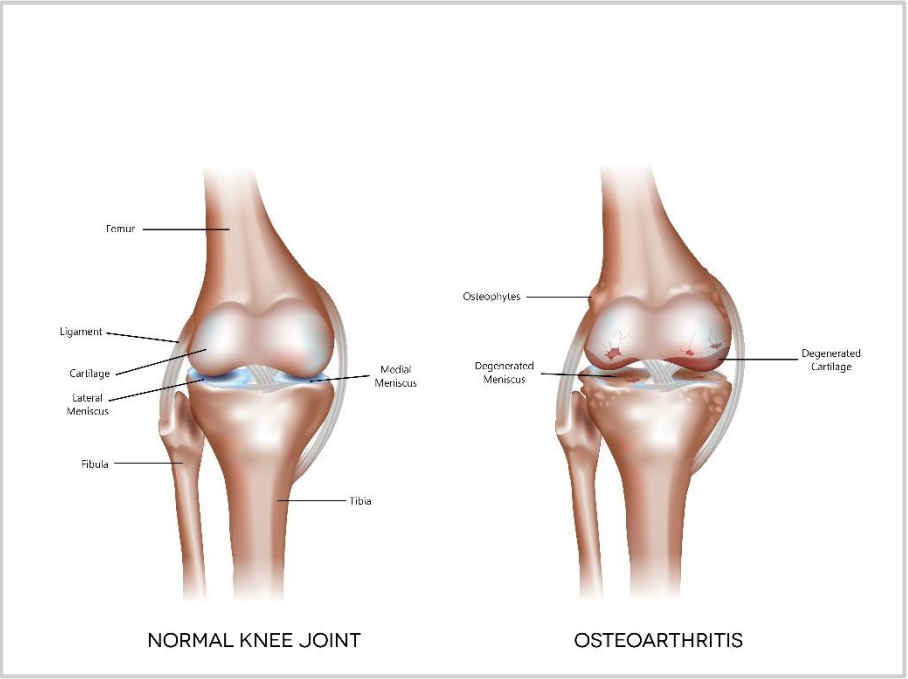
- Condyloid joints allow movement in two directions, such as bending and straightening, and as well, side to side motion. An example is the joint at the base of the fingers.
- Saddle joints are similar to condyloid joints but allow a greater range of movement. An example is the thumb joint.
- Gliding (plane) joints allow bones to slide past each other in various directions. Examples include the wrists and ankles.
- Fixed (fibrous) joints are immovable and are held together by tough connective tissue. Examples include the sutures in the skull.
- Cartilaginous joints have a layer of cartilage between the bones, allowing limited movement. An example is between the vertebrae in the spine.

OA is a common type of arthritis.

OA starts when the protective cartilage providing joint cushioning begins to wear away. When the cartilage wears away, the bones may start to rub against each other, which can cause irritation and small injuries to the bones. The body tries to repair these injuries but cannot keep up with repairs. As time progresses, the joint can become inflamed causing pain, swelling, and stiffness. Many factors can contribute to the development of OA including genetics, joint injuries, and lifestyle.

For example, Figure 1: Knee joint osteoarthritis depicts a normal knee joint as compared to a knee joint with OA.

Figure 1: Knee joint osteoarthritis



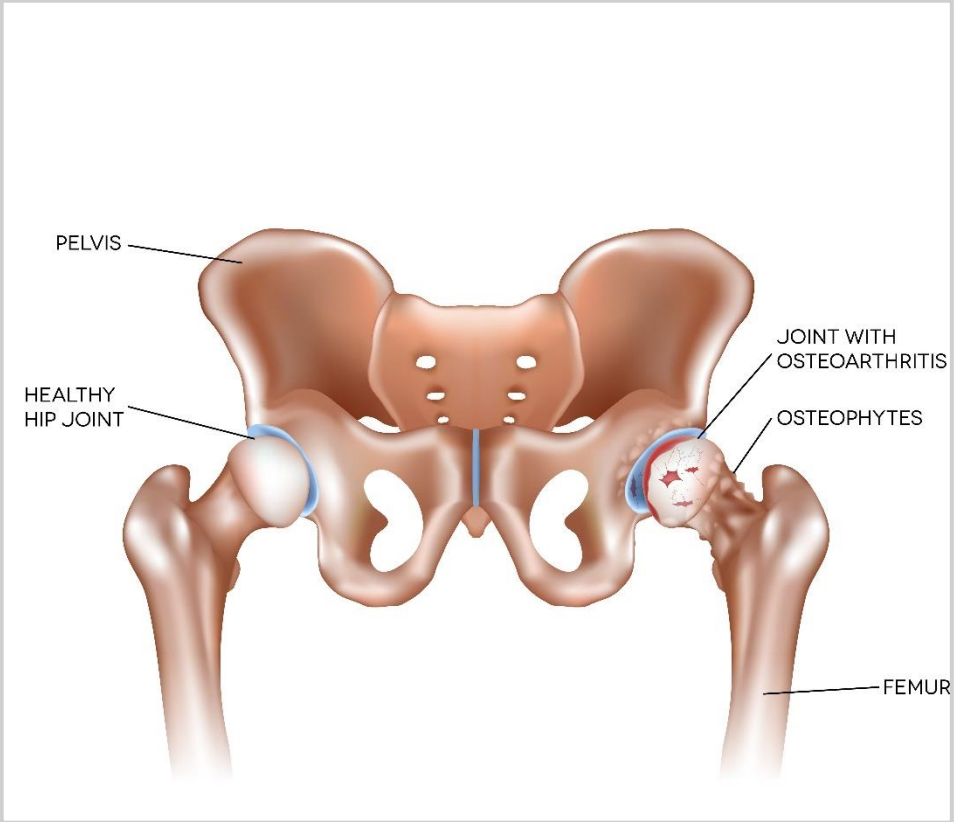
A diagram of a normal knee joint, and a joint with osteoarthritis. Source: Veterans Affairs Canada (2024).

As the cartilage continues to thin out, the body may form new bone growth called osteophytes. The inflammation, ongoing repair attempts, and changes in the joint's structure, can lead to symptoms of OA. This usually happens gradually and can affect the joint's function.

After the initial stages of cartilage degeneration, there may be a delay of many years before a person feels joint pain or x-ray evidence of osteoarthritic changes develop. Significant cartilage damage may have occurred before relevant signs and symptoms appear.

For example, Figure 2: Hip joint osteoarthritis depicts of a normal hip joint as compared to a hip joint with OA.

Figure 2: Hip joint osteoarthritis



A diagram of a hip joint with a healthy hip joint on one side, and a joint with osteoarthritis on the other. Source: Veterans Affairs Canada (2024).

OA is a common disease, with more than 75% of individuals over 70 years of age showing evidence of OA. While the incidence of OA increases with age, the disease is not caused solely by joint aging. Joint trauma and other factors can cause or accelerate the development of OA.

Clinical features

The primary symptoms of OA are joint pain, stiffness, and restricted movement. Pain associated with OA is usually worse with joint use and relieved with rest; however, it may persist when the advanced stages of the disease are reached. The pain can range from a sharp discomfort to a constant ache. Pain is typically subtle at onset, and gradually progresses, usually for many years. Flare-ups of discomfort may be followed by partial or complete remission. Joints often feel stiff after periods of rest, with improvement in the stiffness as the joint resumes moving.

OA is most often observed in the knees, hips, fingers, hands and back. The elbow, wrist, shoulder, and ankle are less commonly affected.

Structural joint changes may be present in the absence of symptoms and vice versa. There are known inconsistencies between findings on x-rays and clinical symptoms, with only 50 to 60% of people with radiographic changes having symptoms of OA. Clinical symptoms, which must be recurrent or continuous after initial manifestation, can precede x-ray findings by up to 10 years.

Examination of the involved joints may reveal mild tenderness, pain, restricted range of movement, joint effusions, and crepitus. In advanced OA, obvious deformity, bony enlargement, angulation, and marked loss of joint movement can be seen.

Female biological sex is associated with a higher prevalence and severity of OA. OA of the hands and knees is more common in females, whereas OA of the hips is more common in males. The reason for the increased risk of OA in females is unclear, but may be related to hormones, genetics, or other undetermined factors.

Military service members experience incidence rates for acute traumatic joint injuries significantly higher than rates observed in the general population. Acute traumatic joint injury has been identified as an important risk factor for OA.

Entitlement considerations

Section A: Causes and/or aggravation

For VAC entitlement purposes, the following factors are accepted to cause or aggravate the conditions included in the Definition section of this EEG, and may be considered along with the evidence to assist in establishing a relationship to service. The factors have been determined based on a review of up-to-date scientific and medical literature, as well as evidence-based medical best practices. Factors other than those listed may be considered, however consultation with a disability consultant or medical advisor is recommended.

The timelines cited below are for guidance purposes. Each case should be adjudicated on the evidence provided and its own merits.

Factors

1. Having experienced a **trauma** to the affected joint prior to clinical onset or aggravation of OA. Trauma to the affected joint means a discrete event involving the application of significant physical force to, or through, the affected joint that causes damage to the joint with clinical symptoms developing within 24 hours of the event and persisting for at least seven days.

2. Having experienced **forceful or repetitive activities** using the affected joint of the upper limb listed below prior to clinical onset or aggravation of OA:

    - glenohumeral
    - acromioclavicular
    - elbow
    - wrist
    - hand.

    For forceful or repetitive activity to cause and/or aggravate OA in one of the above joints, the following criteria should be met:

    - for an average of at least 100 hours per month; and
    - a cumulative period of at least 10 years within a 15 year period; and
    - signs/symptoms of OA should occur within 25 years of the activity ceasing.

    Forceful or repetitive activity using the upper limb is defined as repeated or sustained pinch grip or hand/power grip.

3. Having experienced significant **vibration** to the affected joint of the upper limb as listed below prior to the clinical onset or aggravation of OA:

    - elbow
    - wrist
    - hand.

    For vibration to cause and/or aggravate OA in the elbow, wrist or hand, the following criteria should be met:

    - the use of a hand-held, vibrating, percussion tool or object on more days than not; and
    - over a cumulative period of at least ten years; and
    - signs/symptoms of OA should occur during the activity producing the vibration, or within 25 years of the activity ceasing.

Vibration can occur from a number of tools, including pneumatic tools and other mechanized tools, such as a chain saw.

A pneumatic tool is any tool driven by compressed air, including but not limited to jack hammers, pneumatic drills, compacters, large pop rivet guns of the type used on construction sites, sand blasting equipment, and spray-painting equipment.

4. Having **class 3/severe obesity** (defined as body mass index [BMI] of 40 or greater) for at least ten years before the clinical onset or aggravation of OA in following joints:

    - hip
    - knee.

5. Having an **amputation** involving either leg before the clinical onset or aggravation of OA in the following joints:

    - hip
    - knee.

6. Having a permanent and uncorrected **leg length inequality (LLI)**, as outlined in the LLI discussion paper, before the clinical onset or aggravation of OA in the following joints:

    - hip
    - knee.

7. Having a **service period lasting 10 full time equivalent (FTE) years or more** involving rigorous service activities, tactical training, and maintenance of physical fitness, where the clinical onset or aggravation of OA of the following joints has occurred within 25 years of release from service:

    - hip
    - knee
    - ankle.

    Note: VAC accepts the development of OA of the above joints having a **service period of at least five FTE years** for:

    - an anatomically abnormal hip, knee, or ankle; or
    - female biological sex; or
    - evidence of hip, knee, or ankle symptoms documented during service.

8. **Prolonged kneeling or squatting** using the affected joints of the lower limbs as listed below, prior to the clinical onset or aggravation of OA:

    - hip
    - knee.

    For prolonged kneeling or squatting to contribute to the development of OA in the above joints, the following criteria should be met:

    - a cumulative period of at least one hour per day, on more days than not, for a continuous period of **at least three years** before the clinical onset or aggravation of OA in that joint; and
    - where the clinical onset or aggravation of OA in that joint occurs within the 25 years following that period.

9. Having **Paget's disease of the bone** of the affected joint before the clinical onset or aggravation of OA in that joint.

10. Having **acromegaly** before the clinical onset or aggravation of OA in that joint.

11. Having **femoroacetabular impingement syndrome** of the affected joint, before the clinical onset or aggravation of OA in that joint, for OA of the **hip joint only**.

12. Having **joint instability or dislocation** of the affected joint, at least one year before the clinical onset or aggravation of OA in that joint.

13. Having **neuropathic arthropathy** prior to clinical onset or aggravation of OA. Neuropathic Arthropathy is a neurologic disorder that causes a loss of sensory nerve functions which is accompanied by destructive arthropathy similar to OA. The lack of normal joint sensation alone is not sufficient to result in neurotropic arthropathy

14. Having **necrosis of the subchondral bone** near the affected joint, before the clinical onset or aggravation of OA in that joint.

15. Having **disordered joint mechanics (malalignment)** of the affected joint for at least five years before the clinical onset or aggravation of OA in that joint.

    Disordered joint mechanics is defined as structural maldistribution of loading forces on that joint resulting from:

    - a rotation or angulation deformity of the bones of the affected limb; or
    - a rotation or angulation deformity of the joints of the affected limb; or
    - a rotation or angulation deformity of the bones adjacent to the affected joint.

16. Inability to obtain **appropriate clinical management** for OA.

Section B: Medical conditions which are to be included in entitlement/assessment

Section B provides a list of diagnosed medical conditions which are considered for VAC purposes to be included in the entitlement and assessment of OA of the affected joint.

OA includes all entitled soft tissue and joint disorders in the area of the affected joint. Examples include, but are not limited to the following:

1. OA of the glenohumeral joint of the shoulder

    - Adhesive capsulitis
    - Rotator cuff syndrome/rotator cuff disease
    - Subacromial impingement syndrome
    - Calcific tendinitis
    - Supraspinatus tendonitis
    - Subacromial bursitis
    - Labral tear shoulder
    - SLAP lesion shoulder
    - Rotator cuff tendonitis

2. OA of the cervical spine

3. OA of the thoracic spine

    - Degenerative disc disease of thoracic spine
    - Thoracic disc disease
    - Thoracic spondylosis
    - Facet joint syndrome thoracic spine
    - Chronic mechanical thoracic pain
    - Chronic thoracic sprain/strain
    - Chronic myofascial pain of the thoracic spine region

4. OA of the lumbar spine

5. OA of the hip

    - Chronic trochanteric bursitis
    - Labral tear of the hip

6. OA of the knee

    - Chondromalacia patellae
    - Patellofemoral syndrome
    - Internal derangement of the knee
    - Patellofemoral OA
    - Prepatellar bursitis
    - Suprapatellar bursitis
    - Medial and lateral collateral ligamentous sprain
    - Meniscus tear
    - Baker's cyst
    - Chronic plica syndrome
    - Anterior cruciate ligament tear
    - Posterior cruciate ligament tear

7. OA of the ankle

    - Chronic ankle sprain
    - Calcaneal bursitis
    - Achilles tendonitis

8. OA of the wrist

9. OA of all fingers and thumbs

10. OA of the elbow

    - Chronic olecranon bursitis
    - Chronic medial epicondylitis
    - Chronic lateral epicondylitis
    - Exostosis of olecranon

11. OA of the temporomandibular joint

Section C: Common medical conditions which may result in whole or in part from osteoarthritis and/or its treatment

No consequential medical conditions were identified at the time of the publication of this EEG. If the merits of the case and medical evidence indicate that a possible consequential relationship may exist, consultation with a disability consultant or medical advisor is recommended.

Links

Related VAC Guidance and Policy:

- Ankylosing Spondylitis – Entitlement Eligibility Guidelines
- Chronic Achilles Tendon Conditions - Entitlement Eligibility Guidelines
- Chronic Elbow Tendinopathy (Epicondylitis) – Entitlement Eligibility Guidelines
- Chronic Plica Syndrome – Entitlement Eligibility Guidelines
- Cervical Spine Conditions – Entitlement Eligibility Guidelines
- Internal Derangement Knee – Entitlement Eligibility Guidelines
- Leg Length Inequality (LLI) – Discussion Paper
- Lumbar Spine Conditions - Entitlement Eligibility Guidelines
- Paget's Disease of Bone (Osteitis Deformans) - Entitlement Eligibility Guidelines
- Rheumatoid Arthritis – Entitlement Eligibility Guidelines
- Rotator Cuff Disease – Entitlement Eligibility Guidelines
- Pain and Suffering Compensation - Policies
- RCMP Disability Pension Claims - Policies
- Dual Entitlement – Disability Benefits - Policies
- Establishing the Existence of a Disability - Policies
- Disability Benefits in Respect of Peacetime Military Service – The Compensation Principle - Policies
- Disability Benefits in respect of Wartime and Special Duty Service – The Insurance Principle - Policies
- Disability Resulting from a Non-Service Related Injury or Disease - Policies
- Consequential Disability - Policies
- Benefit of Doubt - Policies

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