

# Rheumatoid Nodules: Causes, Symptoms, and Treatments

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## What Are Rheumatoid Nodules?

Rheumatoid nodules are firm, round lumps that develop under the skin, typically near joints affected by **rheumatoid arthritis (RA)**. These nodules are non-cancerous and vary in size, ranging from a few millimeters to several centimeters. They are a common extra-articular manifestation of RA, occurring in approximately 20–25% of people with the condition.



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## Causes of Rheumatoid Nodules

Rheumatoid nodules are associated with chronic inflammation caused by RA. The immune system attacks healthy tissues, leading to the development of these lumps. Factors contributing to their formation include:

1. **Severe Rheumatoid Arthritis:**
  - More common in individuals with advanced or poorly controlled RA.
2. **Rheumatoid Factor (RF):**
  - High levels of RF or anti-cyclic citrullinated peptides (anti-CCPs) in the blood increase the likelihood of nodules.
3. **Trauma or Pressure:**
  - Nodules often form in areas subjected to repeated pressure, such as the elbows, fingers, or heels.
4. **Medication Side Effects:**
  - Certain RA medications, like methotrexate, can paradoxically increase the risk of nodule formation.

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## Symptoms of Rheumatoid Nodules

- **Firm Lumps Under the Skin:**
  - Typically painless unless they press against nerves or tissues.
- **Common Locations:**
  - Over bony prominences like elbows, knuckles, and heels.
- **Complications (Rare):**
  - Ulceration or infection of the nodules.
  - Compression of nearby structures causing pain or dysfunction.



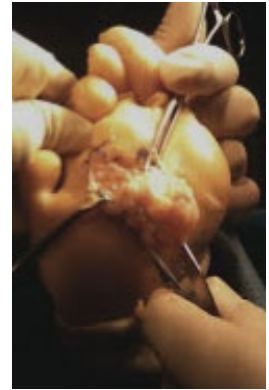
# Treatments for Rheumatoid Nodules

## Non-Surgical Treatments:

1. **Medications:**
  - **Disease-Modifying Antirheumatic Drugs (DMARDs):** Methotrexate or biologics like TNF inhibitors to control underlying RA and reduce inflammation.
  - **Corticosteroid Injections:** Directly into the nodule to reduce size and inflammation.
2. **Lifestyle Adjustments:**
  - Minimize pressure on affected areas by using protective padding or modifying activities.
3. **Observation:**
  - In cases where nodules are painless and not causing complications, no treatment may be necessary.

## Surgical Treatments:

- **Nodule Excision:**
  - Removal of nodules causing discomfort, infection, or cosmetic concerns.
  - Recurrence is possible after surgery.



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## Prevention of Rheumatoid Nodules

- **Effective RA Management:**
  - Early and consistent treatment of RA to prevent complications like nodules.
- **Avoid Repetitive Trauma:**
  - Use cushions or padding to reduce pressure on vulnerable areas