

Treatment of Ankylosing Spondylitis

Early treatment of AS can decrease risk of structural damage.

Goals of treatments

There is currently no cure. The major goals of treatment are to

- Alleviate pain and reduce disease activity.
- Improve physical function related to daily and occupational activities.
- Inhibit structural damage that lead to physical limitations.
- Maintain health-related quality of life and work productivity.
- Decrease disease complications.

Non pharmaceutical therapies

- Encourage regular physical activity.
- Physical therapy and postural training.
- Massage, hydrotherapy, yoga, spinal extension and deep-breathing exercises.
- Support smoking cessation.



Non-steroidal Anti-Inflammatory Drugs (NSAIDs)

- NSAIDs and Cox-2 inhibitors are often first line of treatment. These medications can decrease spinal and peripheral joint pain and improve function in AS.
- Regular use of NSAIDs is recommended in those with active disease.
- On-demand NSAID can be considered in those with stable AS.
- Side effects of NSAIDs include risk for cardiovascular events, renal disease and gastrointestinal (GI) bleeding.



Biologic therapies

- Biologic medications are made from living organisms. These drugs target specific components of the immune response involved in the pathophysiology of AS.
- Tumor necrosis factor inhibitors (TNFi) are recommended in those with active AS despite treatment with NSAIDs.
 - The TNFi -monoclonal antibodies are preferred in those with co-existing recurrent uveitis or inflammatory bowel disease.
- Interleukin-17 inhibitors are effective in the treatment of AS. These are typically used in those without adequate response or experience adverse events with use of TNFi.

Target	Medications	Common side effects
Tumor-necrosis factor blockade (SC or IV)	Adalimumab Certolizumab Etanercept Golimumab Infliximab	Injection site (or infusion) reactions, Increased risk for infections, risk for reactivation of TB and hepatitis, risk for demyelinating diseases, malignancies.
IL-17 inhibitors (SC)	Secukinumab Ixekizumab	Injection site reactions, increased risk for infections including risk for reactivation of TB, inflammatory bowel disease.
JAK inhibitor (oral)	Tofacitinib	Serious infections, GI perforation, reactivation of TB, LFT abnormalities, thrombosis, malignancies.

Disease modifying anti-rheumatic drugs

- Conventional DMARDs have a limited role in the treatment of AS. They do not provide benefit for axial disease.
- Sulfasalazine can be useful in the treatment of peripheral arthritis.
- Methotrexate may be considered for treatment of peripheral arthritis.

Corticosteroids

- **Systemic corticosteroids do not have a role in the treatment of AS.**
- Intra- articular steroids may help with control of symptoms from peripheral joint disease or for sacroiliitis.