Diseases pertaining to the skeletal system
Osteoporosis

- Condition: makes your bones weak
- Leaves it more likely to break.
- Anyone can develop osteoporosis.
- Most common in older women.
- As many as half of all women and a quarter of men older than 50 will break a bone due to osteoporosis.
Risk factors

- Getting older
- Being small and thin
- Having a family history of osteoporosis
- Taking certain medicines
- Being a White or Asian woman
- Having osteopenia, which is low bone mass
Extra information

- Osteoporosis is a silent disease.
- Might not know until a bone is broken.
- A bone mineral density test is the best way to check the bone health.
- To keep bones strong, eat a diet rich in calcium and vitamin D, exercise and do not smoke. If needed, medicines can also help.
Osteoporosis

Eat high-calcium foods, exercise regularly and do not smoke at young age to prevent...
Osteogenesis Imperfecta

- Also called: Brittle bone disease, OI
- Osteogenesis imperfecta (OI) is a genetic disorder in which bones break easily.
- Sometimes the bones break for no known reason.
- OI can also cause weak muscles, brittle teeth, a curved spine and hearing loss.
- The cause is a gene defect that affects how you make collagen, a protein that helps make bones strong.
- When a patient inherits the faulty gene from a parent.
- Sometimes, it is due to a mutation, a random gene change.
Extra information

• OI can range from mild to severe and symptoms vary from person to person.
• A person may have just a few or as many as several hundred fractures in a lifetime. There is no cure, but you can manage symptoms.
• Treatments include exercise, pain medicine, physical therapy, wheelchairs, braces and surgery.
Paget’s disease

- Also called: Osteitis deformans
- Paget's disease of bone causes bones to grow larger and weaker than normal.
- They also might break easily. The disease can lead to other health problems, too, such as arthritis and hearing loss.
- A patient can have Paget's disease in any bone, but it is most common in the spine, pelvis, skull and legs.
- The disease might affect one or several bones, but not the entire skeleton.
- More men than women have the disease.
- It is most common in older people.
More information

Many people do not know they have Paget's disease because their symptoms are mild. For others, symptoms can include

- Pain
- Enlarged bones
- Broken bones
- Damaged cartilage in joints
- No one knows what causes Paget's disease.
- In some cases, a virus might be responsible. It tends to run in families. Treatment includes medication and sometimes surgery. A good diet and exercise might also help.
Information on Rheumatoid Arthritis

- Rheumatoid arthritis is an autoimmune disease in which the body's immune system attacks itself.
- The pattern of joints affected is usually symmetrical, involves the hands and other joints and is worse in the morning.
- Rheumatoid arthritis is also a systemic disease, involving other body organs, whereas osteoarthritis is limited to the joints.
- Over time, both forms of arthritis can be crippling.
Severe rheumatoid arthritis
How it happens

• Deformities distinctive to late-stage rheumatoid arthritis such as ulnar deviation of the bones of the hands occur because muscles and tendons on one side of the joint may overpower those on the other side, pulling the bones out of alignment.
More information

• The cause of RA is unknown.
• It is considered autoimmune disease.
• The body's immune system normally fights off foreign substances, like viruses. But in an autoimmune disease, the immune system confuses healthy tissue for foreign substances. As a result, the body attacks itself.
• RA can occur at any age. Women are affected more often than men.
Location

• RA usually affects joints on both sides of the body equally.
• Wrists, fingers, knees, feet, and ankles are the most commonly affected.
• The course and the severity of the illness can vary considerably.
• Infection, genes, and hormones may contribute to the disease.
Median nerve is compressed at the wrist, resulting in numbness or pain.
Carpal tunnel syndrome

- It may result from repetitive motion or the use of devices like computer keyboards.
- It affects the median nerve, the nerve that supplies feeling and movement to the thumb and "thumb-side" of the hand.
Bone cancer

• Cancer that starts in a bone is rare.
• Cancer that has spread to the bone from another part of the body is more common.
• There are three types of bone cancer:
• Osteosarcoma - develops in growing bones, usually between ages 10 and 25
• Chondrosarcoma - starts in cartilage, usually after age 50
• Ewing's sarcoma - begins in nerve tissue in bone marrow of young people, often after treatment of another condition with radiation or chemotherapy
Symptoms

• The most common symptom of bone cancer is pain.
• Other symptoms may vary depending on the location and size of the cancer. Surgery is often the main treatment for bone cancer.
• Other treatments may include amputation, chemotherapy and radiation.
Osteosarcoma
Chondrosarcoma
Ewing sarcoma