

1 **Diseases of the musculoskeletal system**

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2 **Diseases of the musculoskeletal system** Rheumatology - non-surgical diseases Orthopedics - surgical diseases Traumatology - conditions after injuries, treated surgically Rehabilitation - conservative, often supportive treatmentConservative approach = no surgery3 **Diseases of the musculoskeletal system**

Basic questions about non-accidental damage:

1. Inflammatory x non-inflammatory

2. Acute x chronic

3. Articular x non-articular

4. Which and how many joints are affected

5. Patient's age

1.

4 **Diseases of the musculoskeletal system**

Distinguishing between inflammatory and non-inflammatory process:

	inflammatory	non -
<u>inflammatory</u>	sometimes	not
<u>Redness, heat in the area</u>		

Soft tissue swelling	yes	no
Morning stiffness over 1 hour	yes	no
Systemic symptoms	sometimes	no
Elevated levels of inflammatory markers	yes	no

5 **Diseases of the musculoskeletal system**

Distinguishing between acute and chronic diseases

Acute - gout (arthritis urica), infectious arthritis, rheumatic fever

Chronic - osteoarthritis, rheumatoid arthritis, systemic connective tissue diseases

6 **Diseases of the musculoskeletal system**

Distinguishing between joint and non-joint problems

	articular	non - articular
Pain at rest	diffuse	spot
Pain when moving	also passive	active
Swelling	often	rare

7 **Diseases of the musculoskeletal system**

Disabilities of various joints

Impaired supporting joints – osteoarthritis

Disability of 1 - 3 joints - infection, gout

Polyarthritis - rheumatoid arthritis, systemic diseases

Distribution of joint impairment

Distal interphalangeal joints - osteoarthritis Metacarpophalangeal joints - rheumatoid arthritis

8 **Diseases of the musculoskeletal system**

Begining of problems according to age

Up to 40 years	40 – 60 years	over 60 years
Systemic diseases	rheumatoid arthritis	
osteoarthritis		
Spondylarthritis (spine)	gout	polymyalgia
Rheumatic fever	nonspecific pain	paraneoplast.
Inflammatory disorders		

9 **Diseases of the musculoskeletal system**

Rheumatoid arthritis
 Chronic autoimmune disease
 Symmetrical inflammation of the joints, most often the joints of the hand and feet
 Inflammatory bone erosions and articular cartilage damage
 Cyclic and progressive course
 Joint deformities, ulnar deviation

Extra-articular involvement - heart, lungs, eyes

10 **Rheumatoid arthritis**

11 **Rheumatoid arthritis**

12 **Diseases of the musculoskeletal system**

Ankylosing spondylitis - Bechterew's disease

The disease of young men, up to 90% is HLA-B27 positive
 Impairment of sacroiliac joints. Bamboo spine
 Morning stiffness, improves by morning exercise after waking up
 Chest pain , finally ankylosis, anteflexion

Extra-articular symptoms - eyes (uveitis), GIT - enteritis, colitis

13 **Ankylosing spondylitis - Bechterew's disease**

14 **Bechterew's disease**

15 **Diseases of the musculoskeletal system**

Systemic lupus erythematosus (SLE)
 Production of non-specific organ antibodies
 Joint manifestation

Skin disorders – butterfly rash, photosensitivity
Atherosclerosis acceleration, increased mortality because of MI
Nephritis
Lung
Nervous system – often the first manifestation! Neuropsychiatric disability, convulsions, psychosis

16 **SLE**

17 **Diseases of the musculoskeletal system**

Acute rheumatic fever
Mostly children aged 5 -14, rarely over 30 years
Autoimmune reaction to infection, mostly streptococcus A
Joint involent – signs of inflammation, migrating arthritis within hours
Fever above 39° C
It affects asymmetrically large joints – knee, ankle, wrist, elbow
Rheumatic heard damage – acquired valve defects

18 **Acute rheumatic fever**

19 **Diseases of the musculoskeletal system**

Crystal – Associated Arthtopathies, gout (arthritis urica *uratica*)
Accumulation of uric acid in serum
Disorder of purien metabolism
Depositions of monosodium urat (MSU) crystals in joints
Joint manifestations – typically 1. MTP
A gout attac
Storage of urats – tophaceous deposits
Urat nephropathy

20 **Gout**

21 **Gout (tophaceous deposits)**

22 **Diseases of the musculoskeletal system**

Osteoarthritis

Degenerative joint disease
Risk factors - age, heredity, obesity, excessive use joint (occupation, physical activity)
Supporting joints - coxarthrosis, gonarthrosis, omarthrosis

(shoulder)
Spondylosis and spondylarthrosis

23 **Gonartrosis**

24 **Spondylosis and spondylarthrosis**

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