

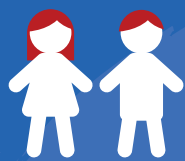
# Rheumatic Disease in Europe

# 200<sup>+</sup>

There are more than 200 rheumatic and musculoskeletal diseases (RMDs).<sup>1</sup>



RMDs commonly affect the joints but can affect any organ in the body.<sup>1</sup>



They can start at any age and can develop in children.<sup>1</sup>



Many of these diseases are chronic and worsen over time, they are typically painful and limit function.<sup>1</sup>



They are usually caused by problems of the immune system, inflammation, infections or gradual deterioration of joints, muscles and bones.<sup>1</sup>

**RA**

## Rheumatoid Arthritis

The most common autoimmune inflammatory form of arthritis.<sup>2</sup>

- Inflamed joint-linings erode cartilage and bone, causing joint deformities and progressive physical disability.<sup>3</sup>
- Affects approximately one in 100 persons worldwide, RA is twice as common in women as in men.<sup>2</sup>

**1** persons worldwide  
**100**

**2** more frequent in women than men

**OA**

## Osteoarthritis

The most common joint disorder, accountable for more disability in the elderly than all other diseases together.<sup>4</sup>

- Cartilage degrades and bone-on-bone contact upon weightbearing and joint mobilisation causes pain, inflammation, swelling and loss of motion.<sup>4</sup>
- By 2050, 130 million people will suffer from osteoarthritis worldwide and 40 million will be severely disabled.<sup>5</sup>

**2050** **130 million sufferers**

## Gout

The accumulation of urate crystals in the (joint) tissues can cause acute arthritis and may lead to kidney failure.<sup>6</sup>

- Symptoms include joint damage, renal stone formation and excruciating pain due to acute inflammation.<sup>7</sup>
- The most common cause of inflammatory arthritis in men.<sup>8</sup>
- Almost as many people suffer from gout as RA.<sup>9</sup>



**SLE**

## Systemic Lupus Erythematosus

A systemic autoimmune disease that can cause arthritis and tissue damage in multiple organs leading to serious complications.<sup>10,11</sup>

- A rare disease, 24/100,000 in the global population suffer from SLE.<sup>12</sup>
- Affects women approximately nine times more frequently than men.<sup>13</sup>

**9** more frequent in women than men

**PsA**

## Psoriatic Arthritis

A chronic disease with inflammation of synovial tissues (joints), tendons and skin.<sup>14</sup>

- PsA-induced joint damage affects patients' ability to work and their social relationships.<sup>15</sup>
- In the past decade, 40-60% of patients with PsA have developed erosive and deforming joint complications.<sup>15</sup>

**40-60%** of patients with PsA developed joint complications

## axSpA

### Axial Spondyloarthritis

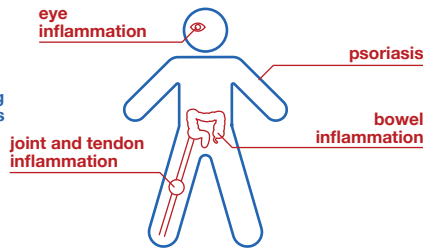
A chronic inflammatory disease predominantly affecting the spine and the joints connecting the spine and pelvis, which may lead to extra bone formation, resulting in a fused spine.<sup>16</sup>

- Patients frequently suffer from inflammation in the joints and tendons, as well as psoriasis, inflammatory bowel disease and inflammation of the eye (i.e. uveitis).<sup>16</sup>
- There are two stages; nonradiographic axSpA, which shows normal joints on a radiograph, followed by the radiographic form also known as ankylosing spondylitis (AS).<sup>16</sup>
- Up to 0.9% of people worldwide suffer from AS.<sup>16</sup>

**2**  
stages

1. nonradiographic axSpA

2. ankylosing spondylitis



## JIA

### Juvenile Idiopathic Arthritis

Includes seven subtypes of chronic arthritis in children with uncertain or unknown origin.<sup>17,18</sup>

- JIA affects a range of children worldwide from 0.07 to 4 in 1,000.<sup>19</sup>
- Symptoms include joint pain, swelling, tenderness and stiffness that lasts for more than six weeks as well as damage to the eyes and lymph nodes.<sup>18</sup>



### Fibromyalgia

A chronic disorder causing muscle pain, sleep disturbances, headaches, and tingling/numbness of extremities.<sup>20</sup>

- While the causes are unknown, development is often associated with a physically or emotionally stressful or traumatic event.<sup>20</sup>
- The presence of other rheumatic disease such as RA or SLE may increase the likelihood of developing fibromyalgia.<sup>20</sup>
- Up to 2% of the population suffers from this condition.<sup>21</sup>

**2%**

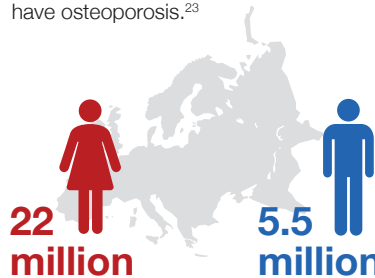


## OP

### Osteoporosis

Skeletal disorder characterised by low bone density and structural deterioration of bone tissue, which leads to bone fragility and increased susceptibility to fracture.<sup>22</sup>

- In the EU 22 million women and 5.5 million men are estimated to have osteoporosis.<sup>23</sup>



## SS

### Systemic Scleroderma

Scleroderma leads to fibrosis of the skin and organs.<sup>24</sup>

- Symptoms include thickened skin, skin discolouration, ulcers, painful and swollen joints and organ manifestations (digestive tract, lungs) due to fibrosis.<sup>24,25,26</sup>
- There are an estimated 2.5 million active cases of SS worldwide.<sup>27</sup>

**2.5**

**million active cases**



1. van der Heijde D, et al. Common language description of the term rheumatic and musculoskeletal diseases (RMDs) for use in communication with the lay public, healthcare providers and other stakeholders endorsed by the European League Against Rheumatism (EULAR) and the American College of Rheumatology (ACR). *Annals of the Rheumatic Diseases*. 2018; doi: 10.1136/annrheumdis-2017-212565. [Epub ahead of print].

2. Cross M, et al. The global burden of rheumatoid arthritis: estimates from the global burden of disease 2010 study. *Annals of the Rheumatic Diseases*. 2014;73:1316-1322.

3. World Health Organisation. The global burden of rheumatoid arthritis in the year 200. Available at: [http://www.who.int/healthinfo/statistics/bod\\_rheumatoidarthritis.pdf](http://www.who.int/healthinfo/statistics/bod_rheumatoidarthritis.pdf) [Last accessed May 2018].

4. National Institute of Arthritis and Musculoskeletal and Skin Diseases. Osteoarthritis. Available at: <https://rarediseases.info.nih.gov/diseases/9751/diffuse-cutaneous-systemic-sclerosis> [Last accessed May 2018].

5. World Health Organisation. Priority diseases and reasons for inclusion. Osteoarthritis. Available at: [http://www.who.int/medicines/areas/priority\\_medicines/Ch6\\_12Osteo.pdf](http://www.who.int/medicines/areas/priority_medicines/Ch6_12Osteo.pdf) [Last accessed May 2018].

6. Annemans L, et al. Gout in the UK and Germany: prevalence, comorbidities and management in general practice 2000-2005. *Annals of the Rheumatic Diseases*. 2008;67(7):960-966.

7. Roddy E, and Choi H. Epidemiology of Gout. *Rheumatic Disease Clinic of North America*. 2014;40(2):155-175.

8. Fuo C-F, et al. Global epidemiology of gout: prevalence, incidence and risk factors. *Nature Review Rheumatology*. 2015;11:649-62.

9. Zhu Y, Pandya B, Choi H. Prevalence of gout and hyperuricemia in the US general population. *Arthritis & Rheumatism*. 2011;63:3136-3141.

10. Danchenko N, Satia JA, Anthony MS. Epidemiology of systemic lupus erythematosus: a comparison of worldwide disease burden. *Sage journals*. 2006;15:308-318.

11. Carter EE, Barr SG, Clarke AE. The global burden of SLE: prevalence, health disparities and socioeconomic impact. *Nature Review Rheumatology*. 2016;12:605-620.

12. Lupus UK. Epidemiology of Lupus. Available at: <https://www.lupusuk.org.uk/medical/gp-guide/introduction-to-lupus/epidemiology-of-lupus/> [Last accessed May 2018].

13. Cleveland Clinic. Center for Continuing Education. Systemic Lupus Erythematosus. Available here: <http://www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/rheumatology/systemic-lupus-erythematosus/#top> [last accessed May 2018].

14. Jung-Tai L, et al. Psoriatic arthritis: Epidemiology, diagnosis, and treatment. *World Journal of Orthopedics*. 2014;5(4):537-543.

15. Slobodin G, et al. Psoriatic arthropathy: where now? *The Israel Medical Association Journal*. 2009;11:430-434.

16. Braun J, et al. Prevalence of spondylarthropathies in HLA-B27 positive and negative blood donors. *Arthritis & Rheumatology*. 1993;41:58-67.

17. MedicineNet. Medical Definition of Idiopathic. Available at: <https://www.medicinenet.com/script/main/art.asp?articlekey=3892> [Last accessed May 2018].

18. National Institute of Arthritis and Musculoskeletal and Skin Diseases. Juvenile Arthritis. Available at: <https://www.niams.nih.gov/health-topics/juvenile-arthritis> [Last accessed May 2018].

19. Manners PJ, Bower C. Worldwide prevalence of Juvenile Arthritis – Why does it vary so much? *The Journal of Rheumatology*. 2002;29(7):1520-30.

20. National Institute of Arthritis and Musculoskeletal and Skin Diseases. Fibromyalgia. Available at: <https://www.niams.nih.gov/health-topics/fibromyalgia#tab-causes> [Last accessed May 2018].

21. Queiroz L. Worldwide Epidemiology of Fibromyalgia. *Current Pain & Headache Reports*. 2013;17(8):1-6.

22. Christodoulou C, Cooper C. Postgraduate Medical Journal. What is osteoporosis? Available at: <http://pmj.bmj.com/content/postgradmedj/79/929/138.full.pdf> [Last accessed May 2018].

23. Svedborn A, et al. Osteoporosis in the European Union: a compendium of country-specific reports. *Archives of Osteoporosis*. 2013;8(1-2):137.

24. Viswanath V, Pishke M, Gopalani V. Systemic Sclerosis: Current Concepts in Pathogenesis and Therapeutic Aspects of Dermatological Manifestations. *Indian Journal of Dermatology*. 2013;58(4):255-268.

25. National Center for Advancing Translation Science. Genetic and Rare Diseases Information Center. Diffuse cutaneous systemic sclerosis. Available at: <https://rarediseases.info.nih.gov/diseases/9751/diffuse-cutaneous-systemic-sclerosis> [Last accessed: May 2018].

26. Herrick A, et al. Treatment outcome in early diffuse cutaneous systemic sclerosis: the European Scleroderma Observational Study (ESOS). *Annals of the Rheumatic Diseases*. 2017;76:1207-1218.

27. Michigan Medicine. The department of internal medicine. Scleroderma program, Division of rheumatology. Available at: <http://www.med.umich.edu/scleroderma/patients/scleroderma.htm> [Last accessed May 2018].