

Significant advancements in surgical treatment have provided effective options to reduce the pain and disability associated with certain musculoskeletal conditions. Joint replacement surgery (hip and knee replacement) is considered the most effective intervention for severe osteoarthritis, reducing pain and disability and restoring some patients to near normal function.

Osteoarthritis is one of the ten most disabling diseases in developed countries. Worldwide estimates are that 9.6% of men and 18.0% of women aged over 60 years have symptomatic osteoarthritis, including moderate and severe forms (WHO, 2010a). Age is the strongest predictor of the development and progression of osteoarthritis. It is more common in women, increasing after the age of 50 especially in the hand and knee. Other risk factors include obesity, physical inactivity, smoking, excess alcohol and injuries (European Commission, 2008b). While joint replacement surgery is mainly carried out among people aged 60 and over, it can also be performed among people at younger ages.

There is considerable variation across countries in the rate of hip and knee replacement (Figures 3.11.1 and 3.11.2). Germany, Austria, Belgium, Norway and Switzerland have the highest rates of hip replacement. These countries are also amongst those that have the highest rates of knee replacement. A number of reasons can explain these cross-country variations in the rate of hip and knee replacement, including: i) differences in the prevalence of osteoarthritis problems; ii) differences in the capacity to deliver and pay for these expensive procedures; iii) differences in clinical treatment guidelines and practices; and iv) international mobility of patients across borders (e.g. in Belgium, about 2% of knee replacement are performed on people who are not residing in the country; European Commission, 2008a).

There are too few comparable studies on the prevalence of osteoarthritis in Europe to draw any conclusions on cross-country variations. Nor is there any evidence as to whether the age- and sex-specific incidence of osteoarthritis has changed in recent decades. However, the number of people suffering from osteoarthritis has increased, and is expected to continue to increase in the coming years, for two reasons: 1) population ageing, which is resulting in a

growing number of people over 60 and 65 years with a greater risk of suffering from osteoarthritis (even if the age and sex specific rate does not increase); and 2) the growing prevalence of obesity, which is the main risk factor for osteoarthritis beyond age and sex (European Commission, 2008b).

The number of hip and knee replacement has increased rapidly over the past ten years in most European countries (Figures 3.11.3 and 3.11.4). On average, the number of hip replacement increased by one-third between 1998 and 2008. The growth rate was even higher for knee replacement, which more than doubled during this ten-year period. For example, in the United Kingdom, hip replacement rate increased by 40% since 2000, while knee replacement increased by 112%.

A hip or knee replacement is an expensive intervention, although the cost varies across countries. In 2007, the average estimated price of a knee replacement in France was EUR 10 600, about 20-25% more than in Finland, Germany, Portugal and Sweden. Nonetheless, the estimated price of a knee replacement in France remained 15-20% lower than in the United States (Koechlin *et al.*, 2010).

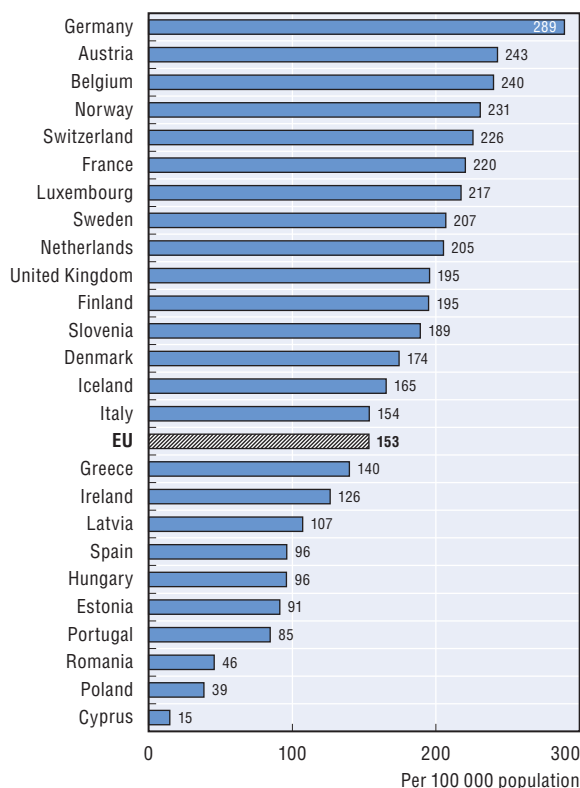
Definition and deviations

Hip replacement is a surgical procedure in which the hip joint is replaced by a prosthetic implant. It is generally conducted to relieve arthritis pain or treat severe physical joint damage following hip fracture.

Knee replacement is a surgical procedure to replace the weight-bearing surfaces of the knee joint to relieve the pain and disability of osteoarthritis. It may be performed for other knee diseases such as rheumatoid arthritis.

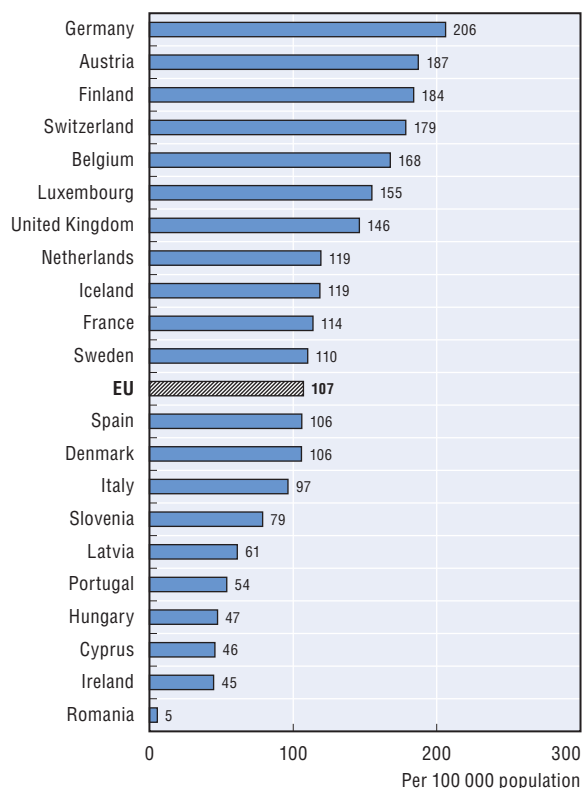
Classification systems and registration practices vary across countries, which may affect the comparability of the data. In Ireland, the data only include activities in publicly-funded hospitals (it is estimated that over 10% of all hospital activity in Ireland is undertaken in private hospitals).

3.11.1. Hip replacement surgery, per 100 000 population, 2008 (or nearest year available)



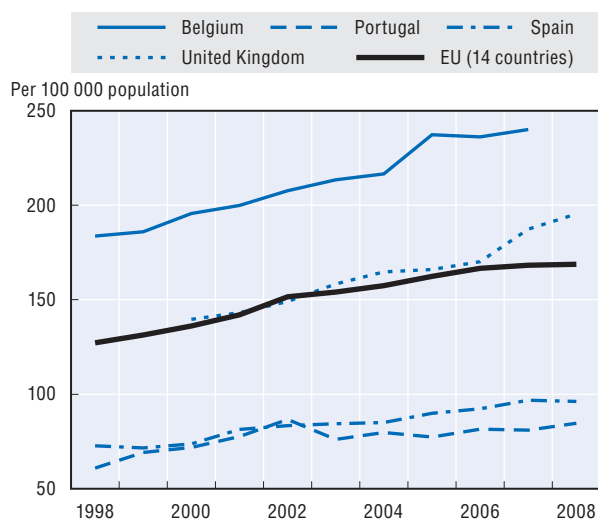
Source: OECD Health Data 2010; Eurostat Statistics Database.
StatLink <http://dx.doi.org/10.1787/888932337129>

3.11.2. Knee replacement surgery, per 100 000 population, 2008 (or nearest year available)



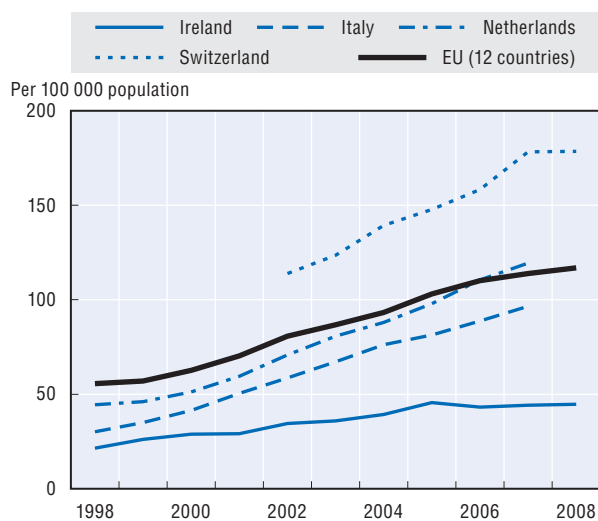
Source: OECD Health Data 2010; Eurostat Statistics Database.
StatLink <http://dx.doi.org/10.1787/888932337148>

3.11.3. Trend in hip replacement surgery, 1998 to 2008 (or nearest year available), selected countries



Source: OECD Health Data 2010; Eurostat Statistics Database.
StatLink <http://dx.doi.org/10.1787/888932337167>

3.11.4. Trend in knee replacement surgery, 1998 to 2008 (or nearest year available), selected countries



Source: OECD Health Data 2010; Eurostat Statistics Database.
StatLink <http://dx.doi.org/10.1787/888932337186>



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