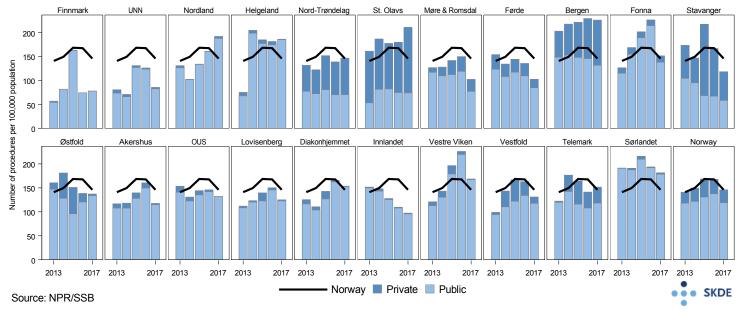
## Day surgery in Norway 2013-2017

## Varicose veins



Loss of venous elasticity and poor venous valve function in the legs give rise to varicose veins, which can cause pressure and a heavy sensation. In more severe cases, symptoms may include swelling, pain and leg ulcers. The decision to treat varicose veins surgically is made on the basis of their size and the degree of cosmetic discomfort, swelling and leg ulcers. Surgical removal or ligation has been the preferred form of treatment, but it is gradually being replaced by endovascular techniques using laser, radiofrequency or foam treatment. These new techniques appear to be as effective as conventional surgery.



Varicose veins, development in the number of procedures per 100,000 population during the period 2013–2017, adjusted for gender and age. Broken down by hospital referral areas and public or private treatment providers.

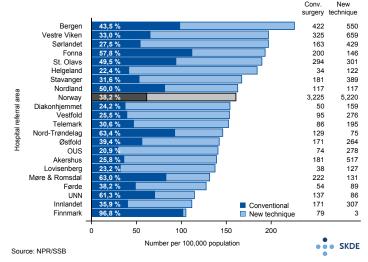
## **Development since 2013**

This healthcare atlas defines the varicose vein surgery sample in a slightly different way than the 2015 day surgery atlas. The updated definition takes account of changes in the coding system and the increasing use of new techniques. For this reason, we will not comment further on the results from the 2015 day surgery atlas. In 2013, just over 7,100 varicose vein operations (adjusted rate: 141 per 100,000) were performed in Norway. That year, 3.5 times as many procedures per 100,000 population were performed on residents of Bergen hospital referral area compared with Finnmark.

The variation between hospital referral areas was lower during the period 2015–2017 than in 2013. Bergen had twice as many varicose vein operations per 100,000 population as Finnmark hospital referral area. For Norway as a whole, the number of procedures per 100,000 population increased from 2013 to 2015, and then decreased from 2016 to 2017. In 2017, just over 7,750 varicose vein operations (adjusted rate: 146 per 100,000) were performed in Norway.

There was a clear reduction in the number of varicose vein operations per 100,000 population in the hospital referral areas of Førde, Stavanger and Innlandet from 2013 to 2017. At the same time, there was a clear increase in the Nordland and Vestre Viken areas. Some hospital referral areas had significant variation from year to year. For Norway as a whole, around one-fifth of varicose vein operations were performed at private hospitals. The proportion varied considerably between hospital referral areas.

During the period 2015–2017, conventional surgery was used in 38% of varicose vein operations in Norway. The proportion varied from 97% in Finnmark hospital referral area to 21% in the OUS area.



Treatment of varicose veins per 100,000 population, conventional surgery and new techniques, adjusted for gender and age. Average per year for the period 2015–2017.

## **Comments**

There was still variation between hospital referral areas in the number of varicose vein operations per 100,000 population during the period 2015–2017, but it was much smaller than in the preceding period. There was great variation in the type of technique used. This suggests that the indications for such surgery may be unclear. There is no known geographical variation in the prevalence of varicose veins. The observed variation is therefore deemed to be unwarranted.