### 3.22 Prostate

Table 3.22.1
Overview of key epidemiological parameters for Germany, ICD-10 C61

| Incidence | 2019 | 2020 |  |
| :---: | :---: | :---: | :---: |
|  | Men | Men |  |
| Incident cases | 72,620 | 65,820 |  |
| Crude incidence rate ${ }^{1}$ | 177.1 | 160.4 |  |
| Age-standardised incidence rate ${ }^{1,2}$ | 108.7 | 97.4 |  |
| Median age at diagnosis | 72 | 71 |  |
| Mortality | 2019 | 2020 | 2021 |
|  | Men | Men | Men |
| Deaths | 15,040 | 15,403 | 15,379 |
| Crude mortality rate ${ }^{1}$ | 36.7 | 37.5 | 37.5 |
| Age-standardised mortality rate ${ }^{1,2}$ | 18.7 | 18.6 | 18.1 |
| Median age at death | 81 | 81 | 81 |
| Prevalence and survival rates | 5 years | 10 years | 25 years |
|  | Men | Men | Men |
| Prevalence | 286,600 | 490,500 | 786,900 |
| Absolute survival rate (2019-2020) ${ }^{3}$ | 75 (73-76) | 57 (54-60) |  |
| Relative survival rate (2019-2020) ${ }^{3}$ | $91(89-91)$ | $89(85-91)$ |  |

${ }^{1}$ per 100,000 persons ${ }^{2}$ age-standardised (old European Standard) ${ }^{3}$ in percent (lowest and highest value of the included German federal states)

## Epidemiology

The number of new cases of prostate cancer in 2020 was about 65,820 . Following an increase in the early 2000s, the age-standardised incidence rate has been falling slightly since 2011 and has remained largely constant in recent years. A similar trend can be observed in many other western industrialised nations and is likely to be due to a long increase in the use of the PSA test (prostate-specific antigen) as an early detection test, which has recently tended to decline. In contrast to the incidence rate, the age-standardised mortality rate fell continuously until 2007 and has remained more or less stable since then. Compared with other countries in Central Europe, Germany is in the middle of the field in terms of prostate cancer incidence.

Prostate cancer rarely occurs before the age of 50 : The risk of a 35 -year-old man developing the disease in the next 10 years is less than $0.1 \%$, whereas the risk for a 75 -year-old man is about $7 \%$.

The relative 5 -year survival rate for men with prostate cancer is $91 \%$. About two thirds of tumours are diagnosed at an early stage (I/II).

## Risk factors and early detection

The causes for the development of prostate cancer and the factors influencing its progression are largely unknown. Age is an important risk factor. Men of black African origin develop the disease more frequently than Europeans and white North Americans; Asians are rarely affected. An accumulation of the disease among close relatives has now been proven as a risk factor, and in some cases inherited changes in certain risk genes can be detected. In addition, chronic inflammation of the prostate and sexually transmitted diseases appear to increase the risk of prostate cancer.

There is little evidence on lifestyle or environmental risk factors. However, a normal weight and sufficient exercise could reduce the risk of prostate cancer.

The statutory cancer screening programme in Germany currently includes an examination of the external genital organs and a palpation of the prostate and lymph nodes once a year for men aged 45 years and over, in addition to questions about symptoms. The PSA test in the blood is currently not part of the general statutory screening programme.

Figure 3.22.1a
Age-standardised incidence and mortality rates, ICD-10 C61, Germany 1999-2020/2021 per 100,000 (old European Standard)


Figure 3.22.1b
Absolute numbers of incident cases and deaths, ICD-10 C61, Germany 1999-2020/2021


Figure 3.22.2
Age-specific incidence rates, ICD-10 C61, Germany 2019-2020 per 100,000


Table 3.22.2
Cancer incidence and mortality risks in Germany by age, ICD-10 C61, database 2019

|  | Risk of developing cancer |  |  |  | Mortality risk |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men aged | in th | ext 10 years |  | ever | in t | next 10 years |  | ever |
| 35 years | $<0.1$ \% | (1 in 4,800) | 13.7 \% | (1 in 7) | $<0.1$ \% | (1 in 152,200) | 3.4 \% | (1 in 30) |
| 45 years | 0.4 \% | (1 in 240) | 13.9 \% | (1 in 7) | $<0.1$ \% | (1 in 5,500$)$ | 3.4 \% | (1 in 29) |
| 55 years | 2.5 \% | (1 in 40) | 14.0 \% | (1 in 7) | 0.1 \% | (1 in 700) | 3.5 \% | (1 in 28) |
| 65 years | 6.2 \% | (1 in 16) | 12.9 \% | (1 in 8) | 0.7 \% | (1 in 150) | 3.7 \% | (1 in 27) |
| 75 years | 6.7 \% | (1 in 15) | 9.0 \% | (1 in 11) | 1.8 \% | (1 in 54) | 3.8 \% | (1 in 26) |
| Lifetime risk |  |  | 13.5 \% | (1 in 7) |  |  | 3.3 \% | (1 in 30) |

Figure 3.22.3
Distribution of UICC stages at diagnosis, ICD-10 C61, Germany 2019-2020
(top: incl. missing data and DCO cases; bottom: valid values only)


Figure 3.22.4
Absolute and relative survival rates up to 10 years after diagnosis, ICD-10 C61, Germany 2019-2020


Figure 3.22.5
Relative 5 -year survival by UICC stage ( $7^{\text {th }}$ and $8^{\text {th }}$ edition TNM), ICD-10 C61, Germany 2019-2020


Figure 3.22.6
Age-standardised incidence and mortality rates in German federal states, ICD-10 C61, 2019-2020
per 100,000 (old European Standard)


Figure 3.22.7
International comparison of age-standardised incidence and mortality rates,
ICD-10 C61, 2019-2020 or latest available year (details and sources, see appendix)
per 100,000 (old European Standard)


