

5.1 Biomedical risk factors

Biomedical risk factors are bodily states that contribute to the development of chronic disease. The 3 biomedical factors in this snapshot—high blood pressure, high blood cholesterol and impaired fasting glucose—have direct and specific risks for health, and may be influenced by behavioural risk factors (see Chapter 5 ‘Behavioural risk factors’). For example, a high blood cholesterol level (biomedical) may be the result of a diet high in saturated fats (behavioural). The effects of individual biomedical risk factors on a person’s health can be amplified when other behavioural or biomedical risk factors are involved. The longer a person lives with 1 or more risk factors, the greater the effect on their overall health and wellbeing.

The latest risk factors results have been sourced from the biomedical component of the Australian Health Survey (AHS) 2011–12 (ABS 2013) and are presented for Australians aged 18 and over unless otherwise specified. The relationships between biomedical and other risk factors and specific diseases are discussed elsewhere in this report, in particular in Chapter 4.

High blood pressure

High blood pressure, also known as hypertension, is a risk factor for stroke, heart disease and chronic kidney disease and can also be considered a cardiovascular disease in its own right. Blood pressure represents the forces exerted by blood on the wall of the arteries. The results for measured high blood pressure presented here include those for people who might otherwise have high blood pressure but are managing their condition with medication.

In 2011–12:

- Of adults who had their blood pressure measured, 32% had high blood pressure—a greater proportion of men (34%) than women (29%) had high blood pressure.
- Of those with high blood pressure (excluding those taking medication), almost half (48%) were not aware before the measurement was taken that they had high blood pressure.
- High blood pressure was most common among people aged 85 and older (88%) and was present in 10% of people aged 18–44.

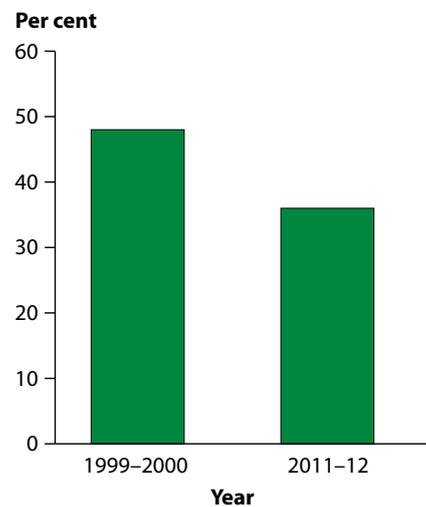
High blood cholesterol

Cholesterol is a fatty substance produced by the liver from saturated fats in the diet. Sufficient physical activity and a diet low in saturated fats are both important contributors to maintaining desirable cholesterol levels. High blood cholesterol is a major risk factor for heart disease and stroke. The results presented are for measured high blood cholesterol only and do not include people who have normal cholesterol levels because they take cholesterol-lowering medication.

In 2011–12:

- More than 1 in 3 people aged 25 and older had high blood cholesterol (36%), a significantly lower proportion than in 1999–2000 (48%) (Figure 5.1).
- One in 10 adults with measured high blood cholesterol (10%) were either unaware that they had the condition or did not consider it to be a long-term or current problem.
- A total of 5.6 million adults had high blood cholesterol—women (2.9 million) outnumbered men (2.7 million).
- One in 3 Australian adults (33%) had high levels of LDL ‘bad’ cholesterol and 23% had low levels of HDL ‘good’ cholesterol (see Glossary).
- High blood cholesterol was most common among those aged 55–64 (48%) and was present in 24% of people aged 18–44.

Figure 5.1



Sources: AIHW analysis of the 1999–2000 AusDiab Study; ABS 2013.

Proportion of people, aged 25 and older, with high blood cholesterol 1999–2000 and 2011–12

Impaired fasting glucose

Impaired fasting glucose (IFG) is defined as the presence of higher than usual levels of glucose in the blood after fasting. It is associated with impaired insulin secretion and is 1 of 2 measures used to define impaired glucose regulation, the other being impaired glucose tolerance. Both measures are risk factors for the future development of diabetes and cardiovascular disease (see Chapter 4 ‘Diabetes’ and ‘Coronary heart disease’).

In 2011–12:

- About 416,000 adults had IFG—almost twice as many men (273,000) as women (143,000) had it.
- IFG was most common among people aged 75 and over (8%) and was present in 1% of people aged 18–44.

**What is missing from the picture?**

It is not clear when future collections of the biomedical data needed to determine trends will be undertaken. Currently there are some comparable biomedical data for 2 time points only—1999–2000 and 2011–12—and more time points will be needed to monitor the progress of these risk factors in the Australian population.

Where do I go for more information?

More information on biomedical risk factors is available from the following AIHW reports that are available for free download: [Prevention of cardiovascular disease, diabetes and chronic kidney disease: targeting risk factors](#), [Risk factors contributing to chronic disease](#) and the forthcoming Cardiovascular, diabetes and kidney disease: Australian facts 2014.

Reference

ABS (Australian Bureau of Statistics) 2013. Australian Health Survey: biomedical results for chronic diseases, 2011–12. ABS cat. no. 4364.0.55.005. Canberra: ABS.