

High blood pressure – the silent killer

High blood pressure isn't painful as such, but it does increase the risk of strokes and serious cardiovascular diseases. In Germany, it is a problem for around half of all people aged over 60, and occurs in younger people as well. We asked Professor Dietrich Andresen, Senior Cardiology Consultant at the Vivantes Hospital am Urban in Berlin, to tell us more about this subject.

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The subject of high blood pressure is nothing new, of course. But what makes it so dangerous?

Professor Andresen: High blood pressure is a silent and insidious killer. If it didn't exist, we humans would live much longer and healthier lives. The high blood pressure itself is not a serious illness at all. We actually feel fit and able-bodied, we need little sleep and are easily able to work. But over the course of the years, high blood pressure results in damage to our cardiovascular system. This can result in complications such as heart attacks, strokes and diseases of the eyes and kidneys.

What can push up blood pressure?

Professor Andresen: We know for one thing that genetic determination – i.e. hereditary predisposition – is a factor. It's not uncommon for the father or mother of a patient to have suffered a heart attack or stroke. But an unhealthy lifestyle also plays its part. Obesity, high salt intake, lack of exercise and sustained psychological and emotional stress are all risk factors that, together, push up blood pressure, which then leads to the organ damage in later life.

But salt is found in lots of different foods. How is it possible to curb our salt intake?

Professor Andresen: You'll go a long way to achieving this if you don't add any salt to your meal after cooking – get that salt shaker off the table!

What role does stress play?

Professor Andresen: Both mental and physical strain cause blood pressure to increase. This is a very normal adaptive process. Your blood pressure will begin to normalise again as soon as you calm down. If you are continually under stress, however, you may develop permanently raised blood pressure over time.

How then does high blood pressure affect our cardiovascular system and organs?

Professor Andresen: The walls of our arteries are actually very soft, very elastic; they give way. Raised blood pressure causes them to harden and stiffen. This is a process that unfolds over ten, twenty, thirty years. 50 per cent of all patients aged over 60 have problems related to arterial stiffness. Permanently high pressure causes the vascular walls to become porous, and deposits can form, e.g. of cholesterol or calcifications.

How do these deposits get there in the first place?

Professor Andresen: The high pressure damages the delicate inner lining of the arteries, which gradually begins to crack. It's a bit like the inner tube of a tyre: if you inflate this from two bar to four bar, the high pressure will cause the tube to become porous and it could tear. The process is the same for your arteries.

Why are these tears so dangerous?

Professor Andresen: Even if the tears are only minuscule, the body detects that something is bleeding. The thrombocytes (blood platelets) then arrive on the scene and try to staunch the bleeding. They do this by closing the artery completely – they clog it up. This clogging is known as an infarction or a heart attack. It's why we call a clogged coronary artery a cardiac infarction; a clogged blood vessel in the brain is known as a cerebral infarction or stroke. Both events are the catastrophic consequence of a high blood pressure condition that started out so harmlessly.