

## International medical review

**R**esearchers evaluated the effect of fish oil on the progression of cardiovascular diseases (CVD).

The health effects of fish oil were found to depend on the presence of CVD. Among baseline healthy individuals, supplementation increased the risk of atrial fibrillation (AF) by 13% and the risk of stroke by 5%.

However, among participants with pre-existing CVD, regular supplementation was associated with a reduced risk of progression. For example, in the presence of AF, the risk of myocardial infarction was reduced by 15% and the risk of major adverse cardiovascular events was reduced by 8%. In heart failure, the risk of death was reduced by 9% with regular fish oil supplementation.

*According to the BMJ journal*

**R**esearchers from Beijing evaluated the effects of intensive and standard blood pressure control on the incidence of cardiovascular events in women and men with type 2 diabetes mellitus (T2DM).

The analysis showed that the early onset of hypertension increased the likelihood of cardiovascular events. The risk increased by 11% for each decade earlier the disease was diagnosed. If hypertension was diagnosed before the age of 50, the likelihood of cardiovascular events increased by 47%. No such association was seen in men.

The authors concluded that women with type 2 DM who are diagnosed with hypertension before age 50 may benefit significantly from intensive therapy compared with standard antihypertensive treatment.

*According to the Diabetes Care journal*

**T**he efficacy and safety of transcatheter aortic valve implantation (TAVI) in patients requiring aortic valve replacement was evaluated by researchers from Germany.

They analyzed data from 1404 patients aged 65 years and older with severe aortic stenosis. Of these, 701 were in the TAVI group and 713 were in the surgical valve replacement group.

The analysis showed that mortality from any cause or stroke was slightly lower one year after TAVI than after surgical valve replacement (5.4% and 10%, respectively).

*According to the NEJM journal*

**C**anadian researchers compared the efficacy and safety of edoxaban and apixaban in a group of patients over 80 years old with non-valvular atrial fibrillation.

Edoxaban and apixaban showed similar efficacy in preventing thromboembolism, with adjusted incidence rates of 20.38 cases versus 19.22 cases per 1,000 person-years.

The incidence of thromboembolism was determined to assess efficacy and the incidence of major bleeding was determined to assess safety. In addition, the risk of all-cause mortality and the risk of combined adverse outcomes were assessed.

*According to the Stroke journal*

**R**esearchers from Italy evaluated the effect of micro- and nanoplastics on the risk of cardiovascular diseases and mortality in patients undergoing carotid endarterectomy for asymptomatic carotid artery disease.

The analysis showed that patients with detectable micro- and nanoplastic particles in atherosclerotic plaques had a 4.5-fold increased risk of myocardial infarction, stroke, or death from any cause after 34 months of follow-up.

Data were analyzed for 304 patients, of whom 257 completed the study.

*According to the The New England Journal of Medicine*

**T**he child who received the world's first partial heart transplant in the spring of 2022 is doing well. The transplanted valves continue to grow with the patient.

After 14 months of follow-up, the child's EchoCG showed no stenosis or regurgitation in the transplanted valves. The study demonstrated an adaptive growth and an excellent hemodynamic function of the valves after partial heart transplantation.

The researchers reported that although partial heart transplantation allows the use of hearts unsuitable for full transplantation, the major problem is still the shortage of donors.

*According to the JAMA Network journal*