

CVD prevention

When do I assess CVD risk in the general practice population?

- The person asks for it
- One or more risk factors are present: smoking, poor food habits or overweight, physical inactivity, hyperlipidaemia, hypertension or diabetes mellitus.
- There is a family history of premature CVD or of major risk factors such as hyperlipidaemia or diabetes.
- There are symptoms suggestive of CVD

Read the 2012 Joint Guidelines in: **European Heart Journal (2012) 33, 1635–1701**
or visit

www.escardio.org/guidelines

Estimation of TOTAL RISK remains a core part of the 2012 guidelines.

Consider using the relative risk chart and the risk-age model.

HDL-adjusted charts available at

www.heartscore.org

Three actions to be taken:

- History taking and clinical judgment
- Assess CVD risk (use SCORE chart backside, unless the person has documented CVD, diabetes, chronic kidney disease or markedly raised single risk factors)
- Decide upon level of risk management

Very high risk

Documented CVD of any type
Diabetes with one or more riskfactors or end organ damage
Severe chronic kidney disease
A calculated SCORE $\geq 10\%$

High risk

Markedly elevated single risk factors (dyslipidaemias, severe hypertension)
Diabetes without riskfactors or end organ damage
Moderate chronic kidney disease
A calculated SCORE of 5-10%

Moderate risk

A calculated SCORE of 1-5%
Many middle-aged subjects belong to this category

Low risk

SCORE $< 1\%$ and free of any qualifiers that would put them at moderate risk

SCORE chart: 10-year risk of fatal cardiovascular disease (CVD) in countries at low CVD risk

Andorra, Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, Malta, Monaco, The Netherlands, Norway, Portugal, San Marino, Slovenia, Spain, Sweden, Switzerland, United Kingdom

<http://eurheartj.oxfordjournals.org/content/early/2012/05/02/eurheartj.ehs092/F4.large.jpg>

SCORE chart: 10-year risk of fatal cardiovascular disease (CVD) in countries at high CVD risk.

All Countries not listed under the low risk chart countries.

<http://eurheartj.oxfordjournals.org/content/early/2012/05/02/eurheartj.ehs092/F3.large.jpg>

How to manage cardiovascular risk?

Behavioural strategies

- **Smoking:** Avoid active and passive smoking. Smokers should quit smoking (if needed with pharmacotherapy).
- **Nutrition:** advise on a healthy diet (ex. fruits and vegetables 500 gr daily), being the cornerstone of CVD prevention. Weight reduction in overweight and obese people is recommended.
- **Physical activity:** healthy adults of all ages should spend 2.5-5 hours a week on physical activity of at least moderate intensity (optimally 30 minutes or more daily, but any physical activity is better than none).

Treatment of risk factors

- **Hypertension:** behavioural strategies in all patients with hypertension or individuals with high normal blood pressure. Target blood pressure levels: < 140 mmHg (systolic) and < 90 mmHg (diastolic) in all hypertensive patients. All major antihypertensive drugs equally effective.
- **Diabetes:** target HbA1c for the prevention of CVD in diabetes: $< 7.0\%$ (< 53 mmol/mol). Statins to all diabetic patients in order to reduce cardiovascular risk. Blood pressure targets in diabetes: $< 140/80$ mmHg
- **Lipids:** patients at very high CVD risk, LDL-cholesterol target is < 1.8 mmol/L (< 70 mg/dL) or a $\geq 50\%$ LDL-cholesterol reduction when the target level cannot be reached. Patients at high CVD risk, LDL-cholesterol target < 2.5 mmol/L (< 100 mg/dL).