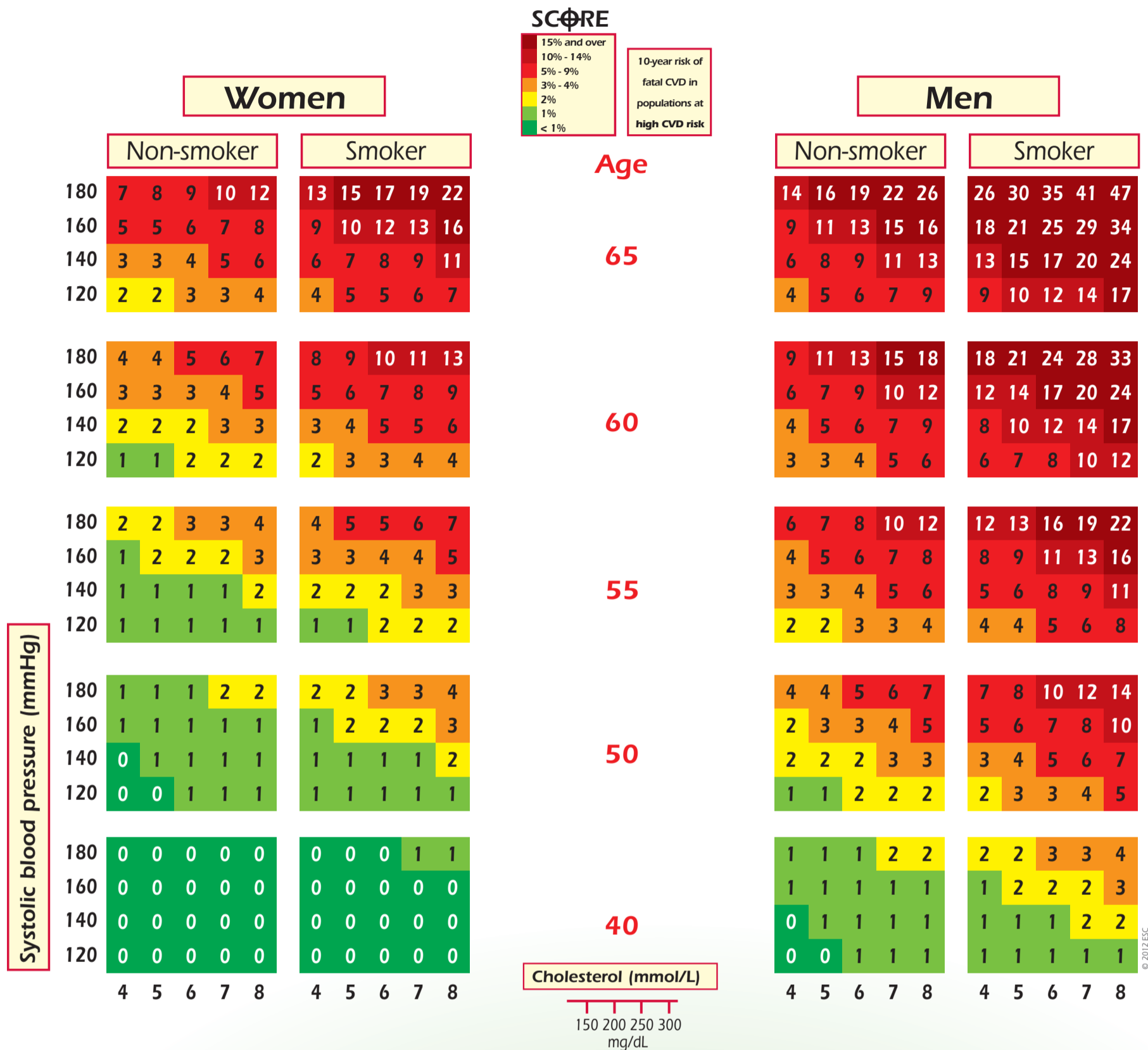


# SCORE - European High Risk Chart

10 year risk of fatal CVD in high risk regions of Europe by gender, age, systolic blood pressure, total cholesterol and smoking status



## How do I use the SCORE charts to assess CVD risk in asymptomatic persons?

1. Use the **low risk charts** in 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 and the United Kingdom.

Use the **high risk charts** in other European countries. Of these, some are at very high risk and the charts may underestimate risk in these. These include Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Macedonia FYR, Moldova, Russia, Ukraine and Uzbekistan.

\*Updated, re-calibrated charts are now available for Belgium, Germany, Greece, The Netherlands, Spain, Sweden and Poland.

2. Find the cell nearest to the person's age, cholesterol and BP values, bearing in mind that risk will be higher as the person approaches the next age, cholesterol or BP category.

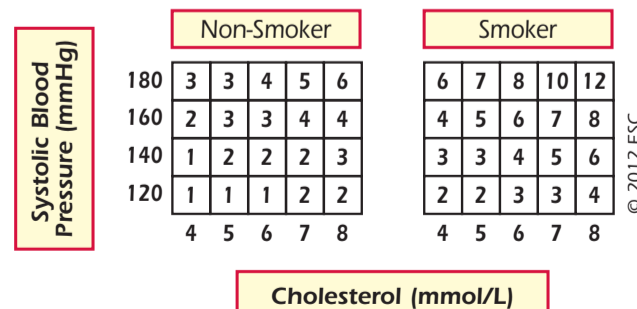
3. Check the qualifiers

4. Establish the total 10 year risk for fatal CVD.

## Relative Risk Charts

Note that a low total cardiovascular risk in a young person may conceal a high relative risk; this may be explained to the person by using the relative risk chart. As the person ages, a high relative risk will translate into a high total risk. More intensive lifestyle advice will be needed in such persons. This chart refers to relative risk, not percentage risk, so that a person in the top right corner is at 12 times higher risk than a person in the bottom left corner.

Another approach to explaining risk to younger persons is to use cardiovascular risk age. For example, in the high risk chart, a 40 year old male hypertensive smoker has a risk of 4%, which is the same as a 65 year old with no risk factors, so that his risk age is 65. This can be reduced by reducing his risk factors.



## Risk estimation using SCORE: Qualifiers

▪ The charts should be used in the light of the clinician's knowledge and judgement, especially with regard to local conditions.

▪ As with all risk estimation systems, risk will be over-estimated in countries with a falling CVD mortality rate, and under estimated if it is rising.

▪ At any given age, risk appears lower for women than men. However, inspection of the charts shows that their risk is merely deferred by 10 years, with a 60 year old woman resembling a 50 year old man in terms of risk.

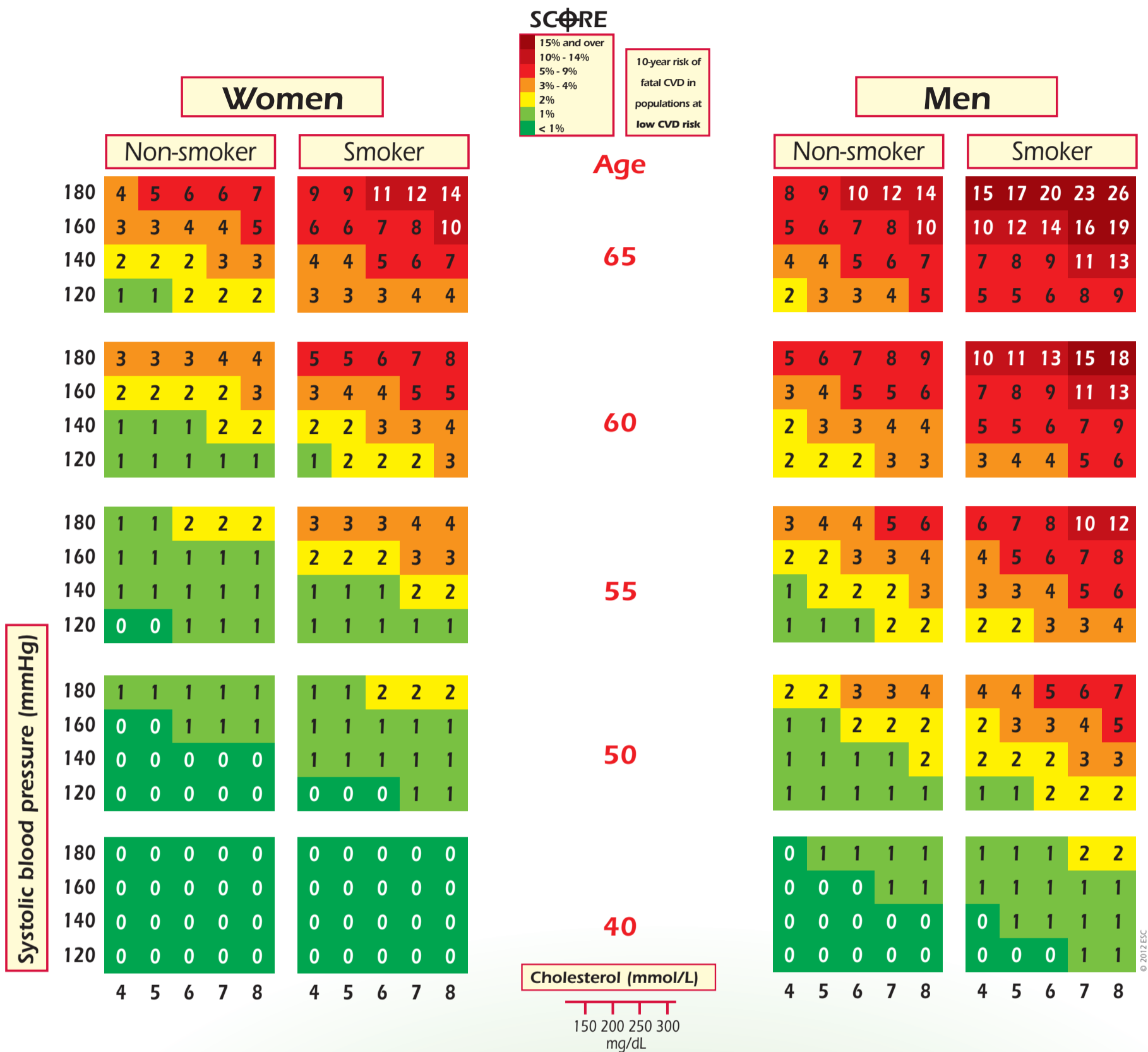
▪ Risk may be higher than indicated in the chart in:

- Sedentary or obese subjects, especially those with central obesity
- Those with a strong family history of premature CVD
- Socially deprived individuals and those from some ethnic minorities
- Individuals with diabetes- the SCORE charts should only be used in those with type 1 diabetes without target-organ damage; other diabetic subjects are already at very high risk.
- Those with low HDL cholesterol\* or increased triglyceride, fibrinogen, apoB, Lp(a) levels and perhaps increased high-sensitivity CRP
- Asymptomatic subjects with evidence of pre-clinical atherosclerosis, for example plaque on ultrasonography.
- Those with moderate to severe chronic kidney disease (GFR <60 mL/min/1.73 m<sup>2</sup>)

\*Note that HDL cholesterol impacts on risk in both sexes, at all ages, and at all level of risk. This effect can be estimated using the electronic version of SCORE, HeartScore, which has been updated to include HDL cholesterol level.

# SCORE - European Low Risk Chart

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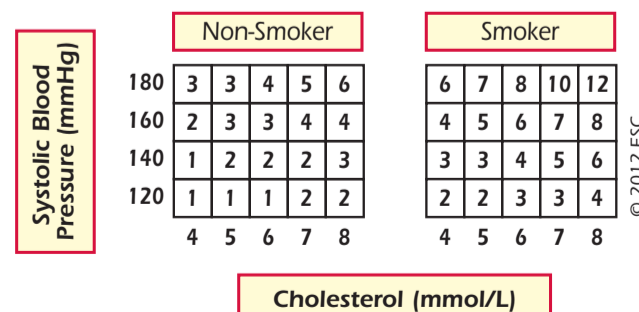
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