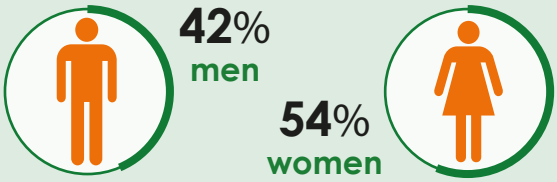
Cardiovascular diseases are the number one cause of death globally

MAJOR KILLER GLOBALLY

17.3 million deaths due to heart disease (2015)

Approximately four million people in Europe die of cardiovascular disease each year[1]

Global death rate expected to rise[2]



YOUR RISK FACTORS ARE:

High blood pressure
50% of all cases of stroke are caused by high blood pressure

Cholesterol
Elevated cholesterol levels contribute to arteriosklerosis

Diabetes
Adults with diabetes have a very high risk to die of heart disease

Depression
Increases risk of dying from heart failure

25-40%

Obesity
Abdominal fat (big belly) changes your metabolism adversely

YOU ARE AT RISK IF YOU:

Smoke
Smokers are two to four times as likely to develop heart disease

2-4X

Fail to exercise
People who don't exercise are 50% more likely to develop heart disease

50%

Drink excessively
People who drink heavily are two times more likely to have a fatal heart attack

2X

Poor diet
People with a diet high in saturated fat have increased risk of developing heart disease

30%

80% of premature deaths from cardiovascular disease could be avoided by controlling the main preventable risk factors.

YOUR DECISION

Alcohol
1-2
Drink no more than two drinks per day for men, and one drink per day for women

Healthy diet
Eat a diet that's low in fat, salt, and sugar, and high in fresh fruits, vegetables and whole grains

Exercise
Keep fit with daily exercise at moderate intensity

Stress
Change your behaviour to limit stress

Smoking
Quitting reduces your risk of heart disease

Risk factors
Control your blood pressure, cholesterol, blood sugar, and weight

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[1]European Society of Cardiology [2]WHO

Cardiovascular diseases are the number one cause of death globally; in 2015 cardiovascular disease accounted for 17.3 million deaths.

Cardiovascular diseases are the leading cause of death globally for men and women of all races. They currently account for 17.3 million deaths per year, a number that is expected to grow to more than 23.6 million by 2030.[1]
Cardiovascular disease accounts for 52% of female deaths and 42% of male deaths in the EU, with approximately four million people in Europe dying of cardiovascular disease each year.

Physiological risk factors

Cardiovascular disease and strokes are usually caused by high levels of bad cholesterol, high blood pressure, obesity, diabetes and stress-related causes, often resulting from damaging behavioural choices.
According to the WHO the prevalence of elevated total cholesterol is highest in Europe (54% for both sexes)

High blood pressure: In America Seventy-five percent of people with chronic heart failure have high blood pressure. And almost half of adults with hypertension don't have it under control.[3]

High cholesterol: People with high cholesterol are twice as likely to develop heart disease as people with normal cholesterol levels are.
Diabetes: People with diabetes are twice as likely to develop heart disease as people who don't have it.
Depression: People with depression are 25 to 40 percent more likely to die from heart disease than people without depression.
Obesity: Coronary artery disease is present 10 times more often in people who are obese. Obesity means a body mass index (BMI) of 30 or above. Twenty percent of children over age 5 and 35 percent of adults are considered obese.

Life-style choices such as smoking, an unhealthy diet, physical inactivity and drinking excessive alcohol significantly increase the risk of cardiovascular disease.

The risk of heart disease and stroke is determined by your life-style choices; these include an unhealthy diet, physical inactivity, tobacco use and the regular consumption of alcohol. The effects of these behaviours may manifest themselves in individuals as physiological risk factors such as raised blood pressure, high blood glucose, elevated blood lipids, and being overweight.

Smoking

Smoking is estimated to cause nearly 10 percent of cardiovascular disease (CVD) and is the second leading cause of CVD.

Tobacco damages blood vessels, temporarily raises blood pressure and lowers exercise tolerance. Moreover, tobacco decreases the amount of oxygen that the blood can carry and increases the tendency for blood clots to form in arteries that may ultimately result in a stroke or sudden death.[4]

Did you know that:

- People who smoke are two to four times as likely to develop heart disease as non-smokers.
- People with a diet high in saturated fat are 30 percent more likely to develop heart disease than people who eat a healthy, low-fat diet.
- People who don't exercise are 50 percent more likely to develop heart disease than people who exercise regularly.
- People who binge drink or drink heavily are two times more likely to have a fatal heart attack as people who don't.

80% of premature deaths from cardiovascular disease could be avoided by controlling the main preventable risk factors.

You can control the main preventable risk factors, which have all been shown to reduce the risk of cardiovascular disease: Quit smoking, reduce salt in your diet, consume fruits and vegetables, engage in regular physical activity and avoid harmful use of alcohol.

1. Drink no more than one to two drinks per day for men, and one drink per day for women.
2. Eat a diet that's low in fat, cholesterol, salt and sugar, and high in fresh fruits and veggies, whole grains, omega-3 fatty acids, and dark chocolate.
3. Exercise at moderate intensity.
4. Limit stress.
5. Quit smoking
6. Control your blood pressure, cholesterol, diabetes and weight.

Cardiovascular disease poses a severe economic burden with a global cost of $863 billion in 2010.

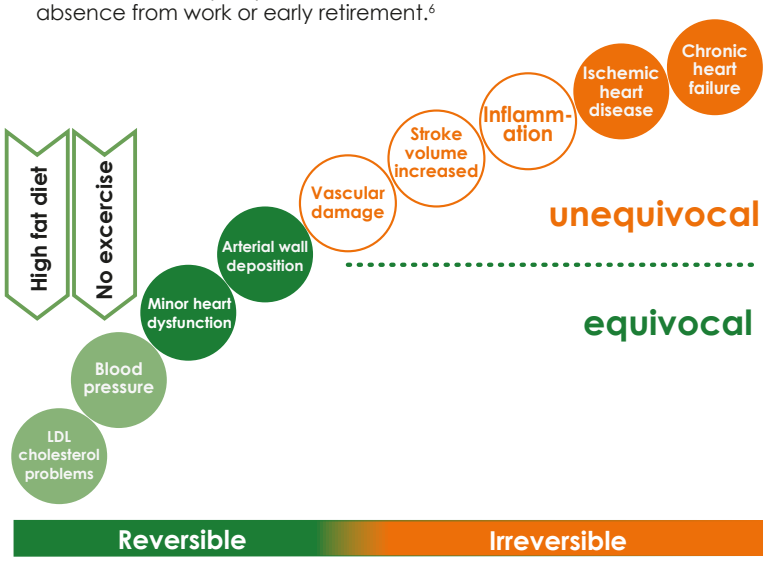
Cardiovascular disease progresses undetected to vascular injury leading into an irreversible state frequently only detected when a potentially fatal heart attack or stroke occurs. Detectable signs of disease, such as cholesterol problems and arterial wall deposition fail to decisively identify individuals at risk of progressing towards heart failure. sysVASC aims to identify biomarkers to make early stages of vascular damage detectable and therefore provide a basis for improved personal risk prediction. Earlier diagnosis would allow available preventive measures to be targeted to those at high risk of suffering heart failure. sysVASC biomarkers therefore have the potential to reduce the economic burden of cardiovascular disease, which currently amounts to €192 billion annually in the EU.

sysVASC is a bench to bedside project with a systems biology approach to identify molecular targets for vascular disease treatment

Cardiovascular disease poses a severe economic burden with a global cost of $863 billion in 2010.

The global cost of cardiovascular disease was $863 billion in 2010; this is predicted to rise to $1,044 billion by 2030. Cardiovascular disease affects not only high-income but also low- and middle-income countries, where nearly 80 percent of all fatalities occur.[5]

In the EU the economic cost is estimated at over €196 billion per year with €106 billion spent on healthcare, €44 billion (22%) on informal care, €27 billion (14%) due to early mortality and €19 billion due to absence from work or early retirement.[6]



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[1]WHO [2]European Society of Cardiology (ESC) [3]American heart association [4]World heart federation [5]WEF/Harvard School of Public Health -The Global Economic Burden of Non-communicable Diseases [6]ESC, European Heart Network (EHN), Department of Public Health at Oxford University