

Awareness on heart attack and stroke

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Potential conflicts: honoraria from Amgen, Bayer, BMS-Pfizer,
Boehringer Ingelheim, Daiichi Sankyo

- Heart attack ←
- Stroke
- Risk factors
- Background

Heart attack: what is going on?

Heart attack



A heart attack happens when there is a sudden loss of blood flow to a part of your heart muscle. Most heart attacks are caused by [coronary heart disease](#).

A heart attack is life-threatening. If you think you or anyone else is having a heart attack, call **118** for an ambulance immediately.

If you're not sure, it's still important to seek medical attention to be on the safe side.

Mod. from www.bhf.org.uk

What does a heart attack feel like?

Heart attack symptoms vary from one person to another. The most common signs of a heart attack are:

- Pain or discomfort in your chest that suddenly occurs and doesn't go away.
- The pain may spread to your left or right arm or may spread to your neck, jaw, back or stomach. For some people the pain or tightness is severe, while other people just feel uncomfortable.
- You may also feel sick, sweaty, light-headed or short of breath.

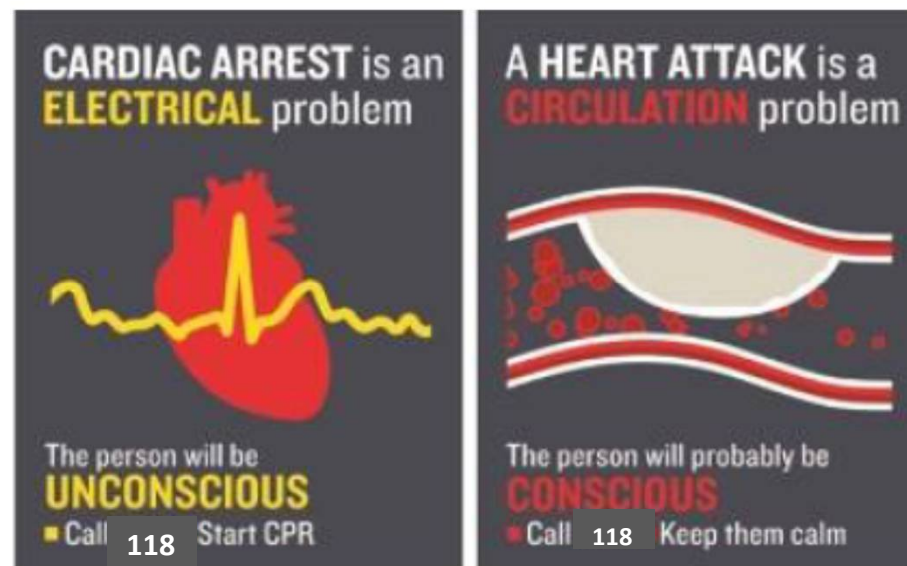
It's possible to have a heart attack without experiencing 'classic' chest pain. This is more common in the elderly, women, or those with diabetes as the condition can cause nerve damage which can affect how you feel pain.

Mod. from www.bhf.org.uk

Cardiac arrest vs Heart attack

A **heart attack** is when one of the coronary arteries becomes blocked. The heart muscle is robbed of its vital blood supply and, if left untreated, will begin to die because it is not getting enough oxygen. If you are having a heart attack you will be conscious.

A **cardiac arrest** is when a person's heart stops pumping blood around their body and they stop breathing normally. If you are in cardiac arrest you will be unconscious and need to [receive CPR immediately](#).



Mod. from www.bhf.org.uk

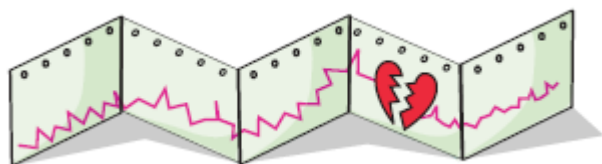
Should I take an aspirin?

Chew an adult aspirin tablet (300mg) if one is easily available, unless you're allergic to aspirin or you've been told not to take it.

If you don't have an aspirin next to you, or if you don't know if you're allergic to aspirin, just stay resting until the ambulance arrives. If possible, get someone to open the door for the paramedic as this saves time.

Mod. from www.bhf.org.uk

È fondamentale essere consapevoli che il danno dell'infarto diventa sempre più grave con il passare delle ore e l'efficacia degli interventi terapeutici è tanto maggiore quanto più precocemente iniziati.



L'ideale sarebbe metterli in atto entro la prima ora dall'inizio dei sintomi.

Non bisogna, perciò, assolutamente sottovalutare alcun tipo di fastidio al centro del petto o allo stomaco e chiedere subito l'intervento del 118.



Un semplice elettrocardiogramma potrà essere determinante per distinguere un infarto da un banale malessere. Aspettare per vedere cosa succede non serve a niente e fa solo perdere tempo prezioso.

How is a heart attack diagnosed?

The ambulance team will do a test called an [electrocardiogram \(ECG\)](#) to try to find out if your symptoms are due to a heart attack. This has to be done quickly so that it doesn't delay your transfer to hospital.

The test involves putting small sticky patches called electrodes on your arms, legs and chest. These are connected by wires to a machine which records the electrical impulses in your heart that make it pump. The paramedics may be able to diagnose if you're having a heart attack from the specific changes that are seen on your ECG results.

You may need further tests to diagnose a heart attack if the ECG isn't conclusive.

What treatment will I need ?

If you have a heart attack you need to have treatment as soon as possible.

Early treatment to get the blood flowing to the damaged part of your heart muscle again can save your life and limit the amount of permanent damage to your heart muscle.

Many people who have a heart attack need to have emergency treatment to unblock the coronary artery.

- You might have a treatment called primary angioplasty, which is a procedure to re-open the blocked coronary artery and usually involves inserting one or more stents to help keep the narrowed artery open.
- Or you might have **thrombolysis**, which means giving you a 'clot-busting' medicine to dissolve the blood clot that is blocking the coronary artery.

In some types of heart attack people do not receive either of these two treatments because it may not be safe or appropriate.

You will usually stay in hospital for about two to five days, depending on what treatment you have had and how well you begin to recover.

Mod. from www.bhf.org.uk

- Heart attack
- Stroke ←
- Profile at risk
- Background

Stroke: what is going on?

What is a stroke?

A stroke is a brain attack. It happens when the blood supply to part of your brain is cut off.

Mod. from www.stroke.org.uk

Recognising the signs of a stroke

The signs and symptoms of a stroke vary from person to person, but usually begin suddenly.

As different parts of your brain control different parts of your body, your symptoms will depend on the part of your brain affected and the extent of the damage.

The main stroke symptoms can be remembered with the word F.A.S.T.:

Act “F.A.S.T.”

“If you think someone may be having a stroke, act F.A.S.T. and do this simple test:

F—FACE: Ask the person to smile. Does one side of the face droop?

A—ARMS: Ask the person to raise both arms. Does one arm drift downward?

S—SPEECH: Ask the person to repeat a simple phrase. Is their speech slurred or strange?

T—TIME: If you observe any of these signs, call 118 immediately.

NOTE THE TIME WHEN ANY SYMPTOMS FIRST APPEAR. If given *within 4.5 hours* of the first symptom, there is a clot-buster medication that may reduce long-term disability for the most common type of stroke.

Learn as many stroke symptoms as possible so you can recognize stroke as **FAST** as possible.”

Mod from National Stroke Association. www.stroke.org

Hacke W et al. N Engl J Med 2008;359:1317-29

Other possible signs of stroke

- complete [paralysis](#) of one side of the body
- sudden loss or blurring of vision
- [dizziness](#)
- confusion
- difficulty understanding what others are saying
- problems with balance and co-ordination
- difficulty swallowing ([dysphagia](#)).
- a sudden and very severe headache resulting in a blinding pain unlike anything experienced before
- loss of consciousness

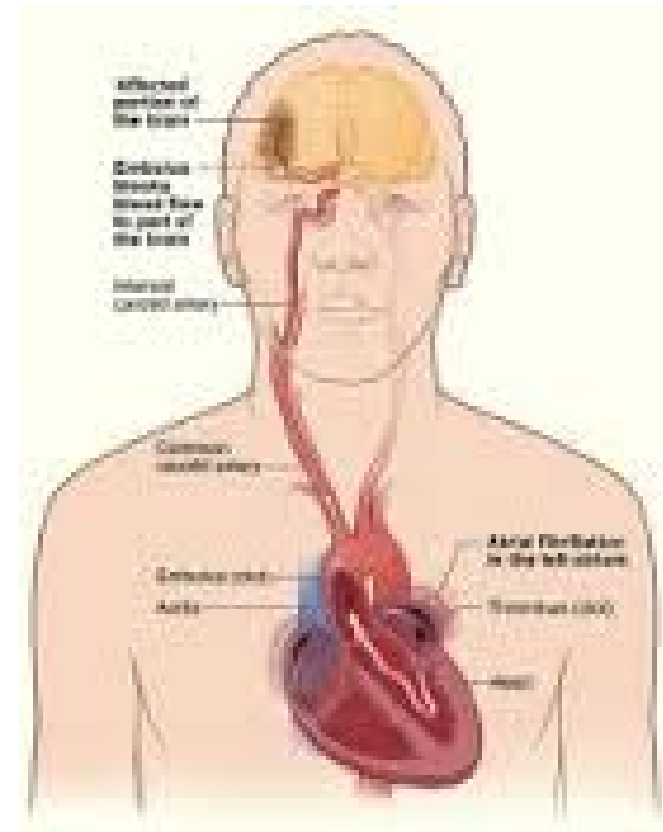
Cardioembolic stroke



ECG tracing a normal heart rhythm



ECG tracing atrial fibrillation (AF).
The rhythm is irregular and erratic.



Cove CL, Albert CM, Andreotti F et al. Thromb Haemost. 2014;111:385-91

Google: atrial fibrillation and stroke

How to reduce the risk of cardioembolic stroke

Checking your «pulse»

An irregular pulse may be due to atrial fibrillation

Atrial fibrillation is an important cause of stroke



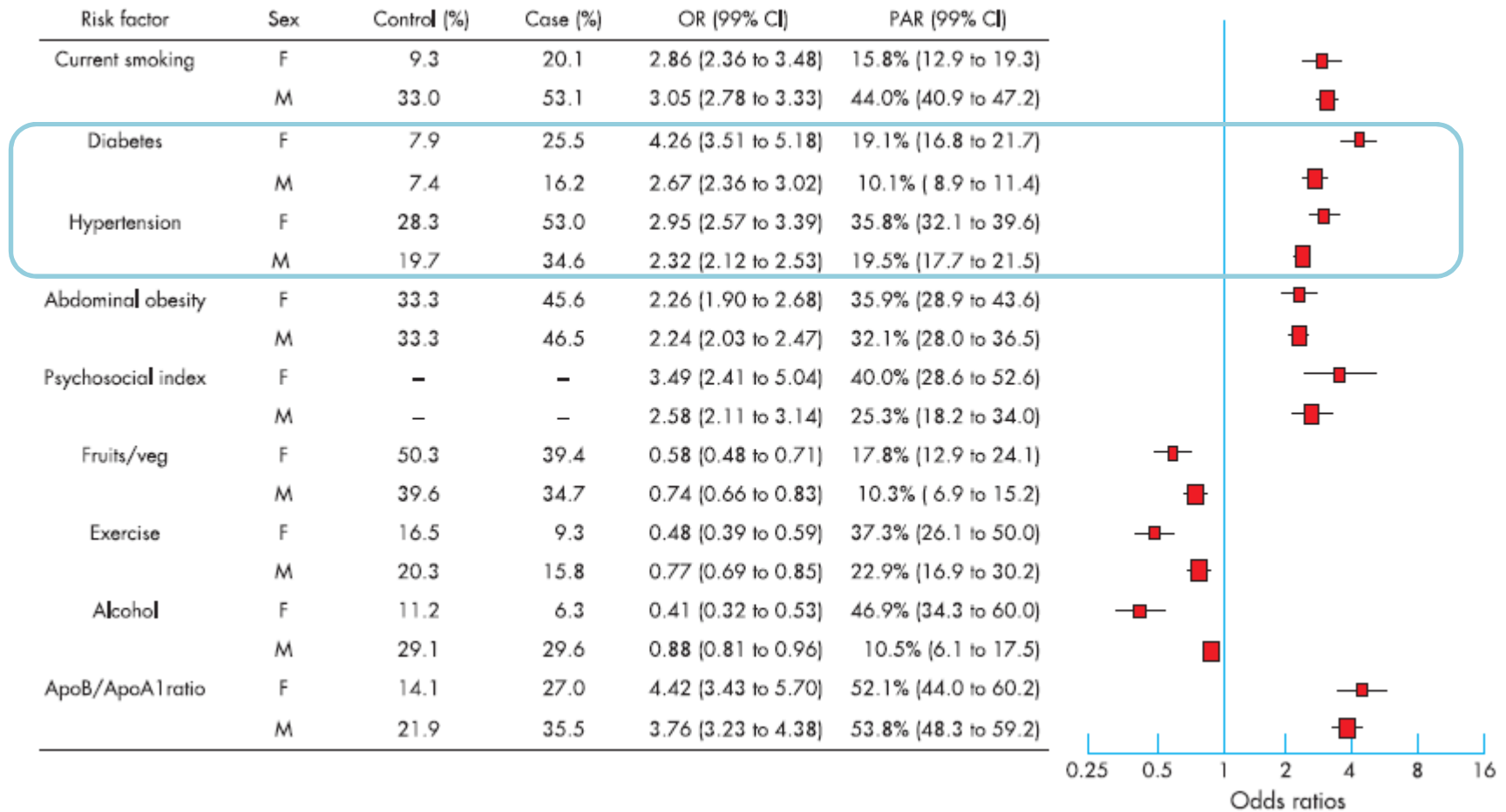
Recommendations	Class ^a	Level ^b
Opportunistic screening for AF in patients ≥ 65 years of age using pulse-taking followed by an ECG is recommended to allow timely detection of AF.	I	B

Camm et al. Eur Heart J 2012 ESC AF Guidelines



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9 modifiable factors account for 90% of the risk of heart attacks



Yusuf S et al. Lancet 2004;364:937-52
 Andreotti, Marchese. Heart 2008;94:108-116

USEFUL NUMBERS TO KNOW

Risk factors	Optimal values	Our numbers
Blood pressure	< 130/80 mm Hg	____ / ____ mm Hg
Total blood cholesterol	< 200 mg/dl	____ mg/dl
'Bad' cholesterol (LDL)	< 100 mg/dl	____ mg/dl
'Good' cholesterol (HDL)	> 50 mg/dl	____ mg/dl
Blood triglicerydes	< 150 mg/dl	____ mg/dl
Blood glucose (HbA1c)	< 7%	____ %
Body mass index	18.5-24.9 kg/m ²	____ kg/m ²
Waist circumference (F/M)	< 89/99 cm (80/85 Jap)	____ cm

Mod from 2011 American Heart Association, NHL.

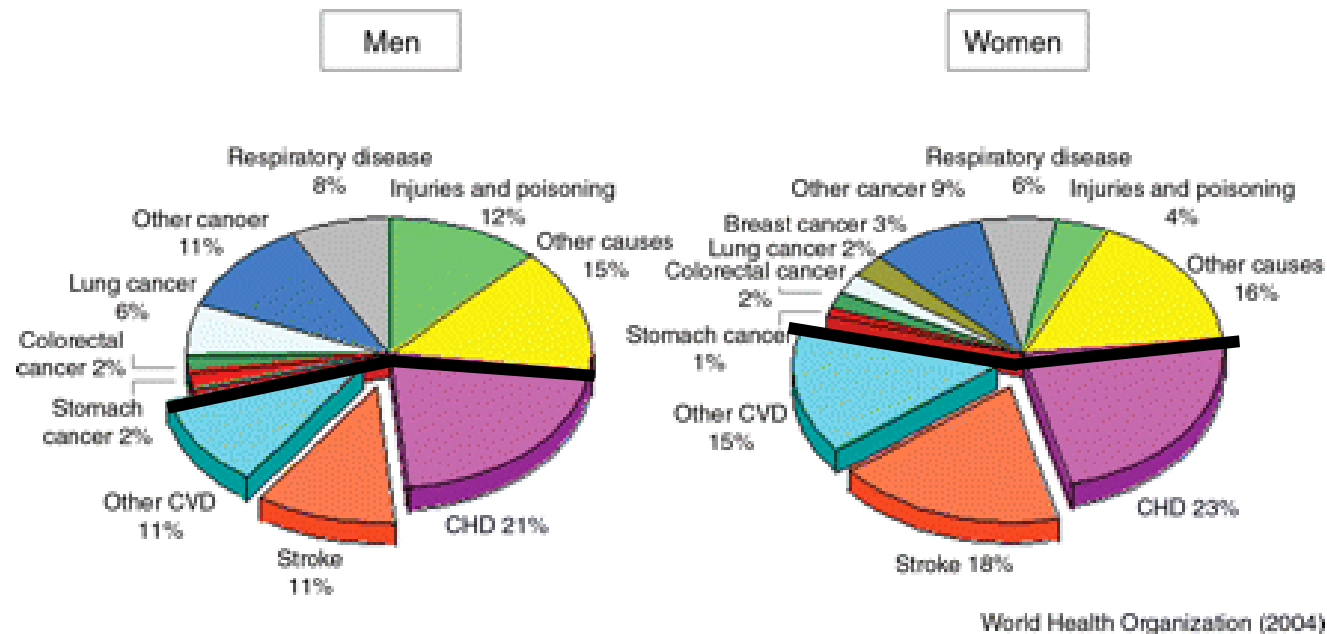
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Background

- Heart attacks and strokes are typical of
 - both men and women
 - older age
 - individuals with *vascular risk factors*
- Heart attacks and strokes are the first cause of death in the Western world

WHO DIES MORE of heart attacks and strokes: women or men?

43% of men and 56% of women die of cardiovascular disease

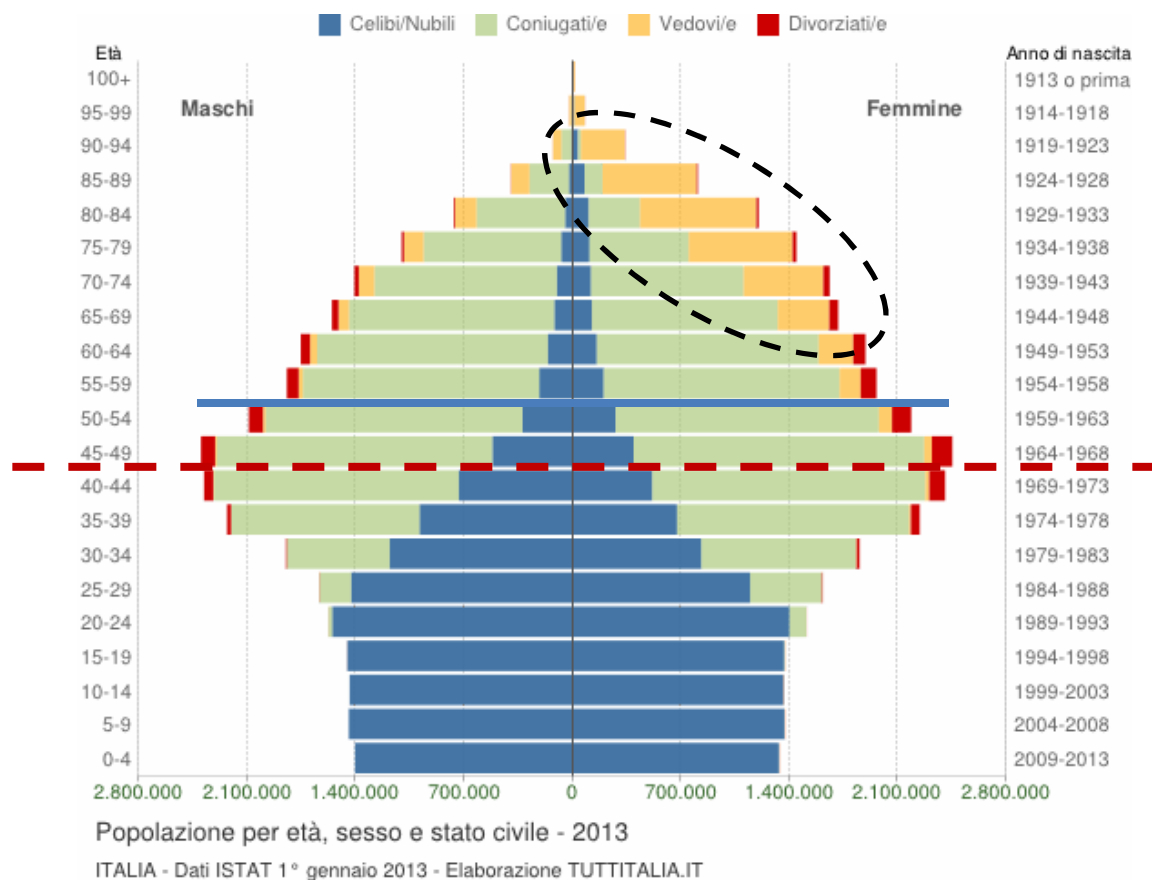


Stramba-Badiale M et al . Eur Heart J 2006;27 994-1005

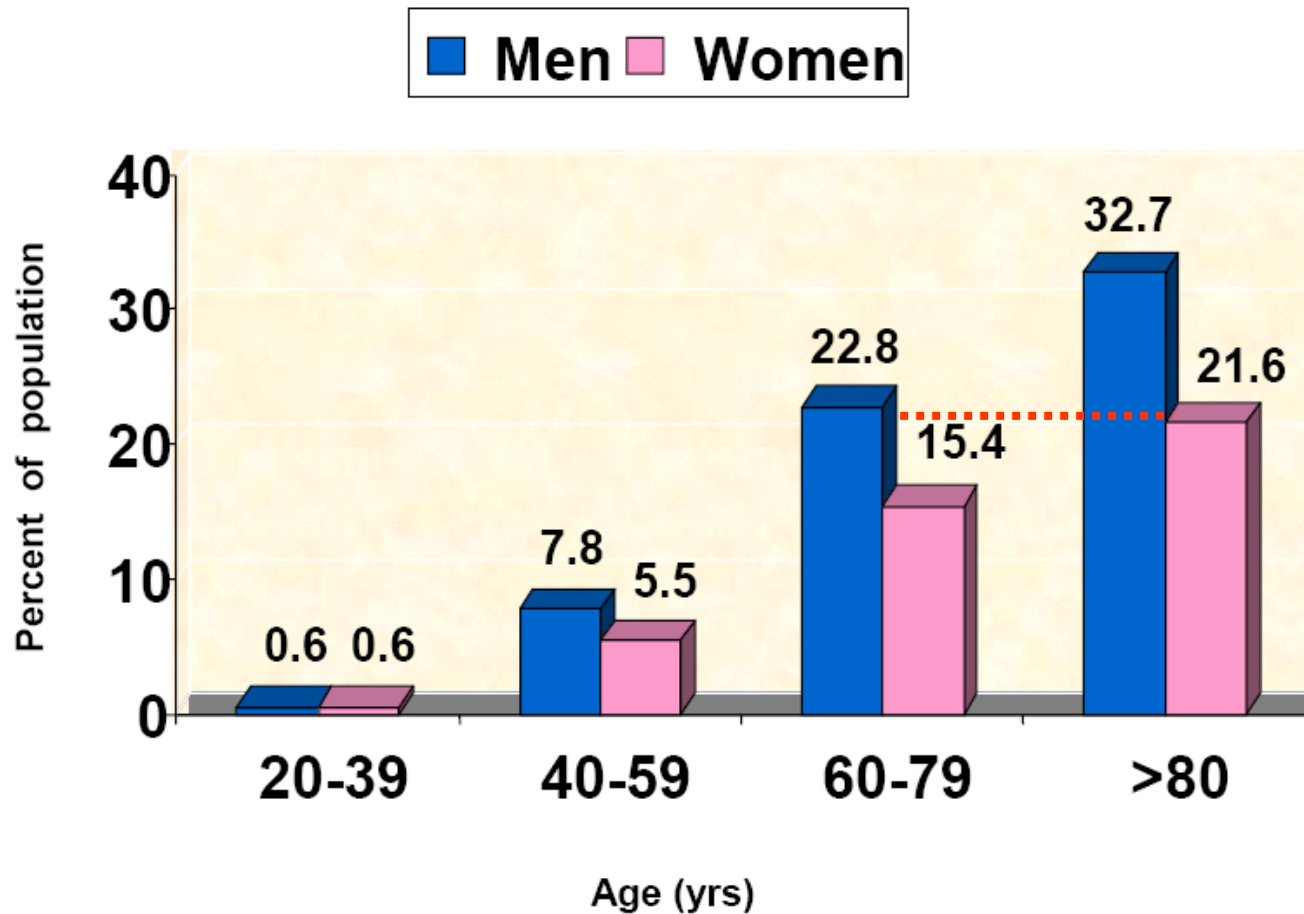
Andreotti, Marchese. Heart 2008;94:108-16

HOW OLD ARE WE ?

Half of Italy is >45 years old, a third over 55



Prevalence of heart disease by age and gender



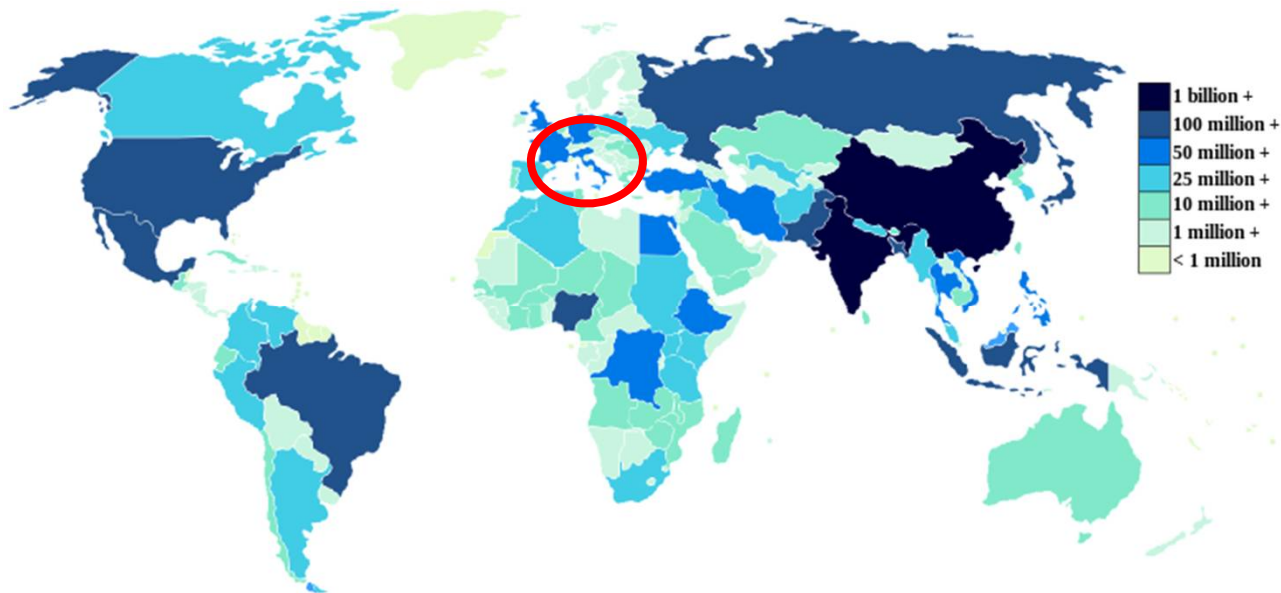
Rosamond W et al. Circulation 2007 115 e69-171

Andreotti, Marchese. Heart 2008;94:108-16

WHO are we talking about? world population: over 7 billion

In Italy ~60 million → 29 M men, 31 M women

Rome: city ~2,6 M, province 4 M



Estimates: At least 1 M people in Rome are >45 yo
At least 20% of >45 yo have cardiovascular disease (CVD)
→ At least 250.000 people have CVD in Rome

en.wikipedia.org/wiki/World_population

demo.istat.it

Preventing a heart attack or stroke

Will it happen again?

Having one heart attack does increase the risk of having another, but this risk is greatly reduced with the correct treatment. And, if you take the medicines your doctors have prescribed for you and follow a healthy lifestyle, you can significantly reduce your risk.

Preventing a heart attack

Living a healthy lifestyle can help prevent you from developing coronary heart disease and having a heart attack.

There are a number of lifestyle factors that can increase your chances of getting coronary heart disease. These include:

Recipe

Use

- a weighing scale
- a measuring tape (iliac crest, just below navel)
- a sfigmomanometer
- intelligence and care towards self: e.g., refraining from smoking, exercising regularly

Plan

- a blood test

High blood pressure



Smoking



High cholesterol



Weight and body shape



Diabetes



Not doing enough physical activity



Mod. In part from www.bhf.org.uk

Summary

- Be aware
- Recognise and modify vascular risk factors (asap)
- Accept and react to symptoms of heart attack or stroke (call 118)
- Check heart rhythm (pulse) especially ≥ 65 years