

# Cardiovascular Disease – the next pandemic?



**Dr David Leiper**  
Company Medical Officer  
Taqa

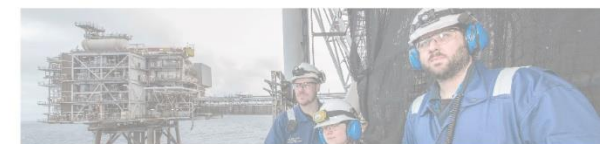


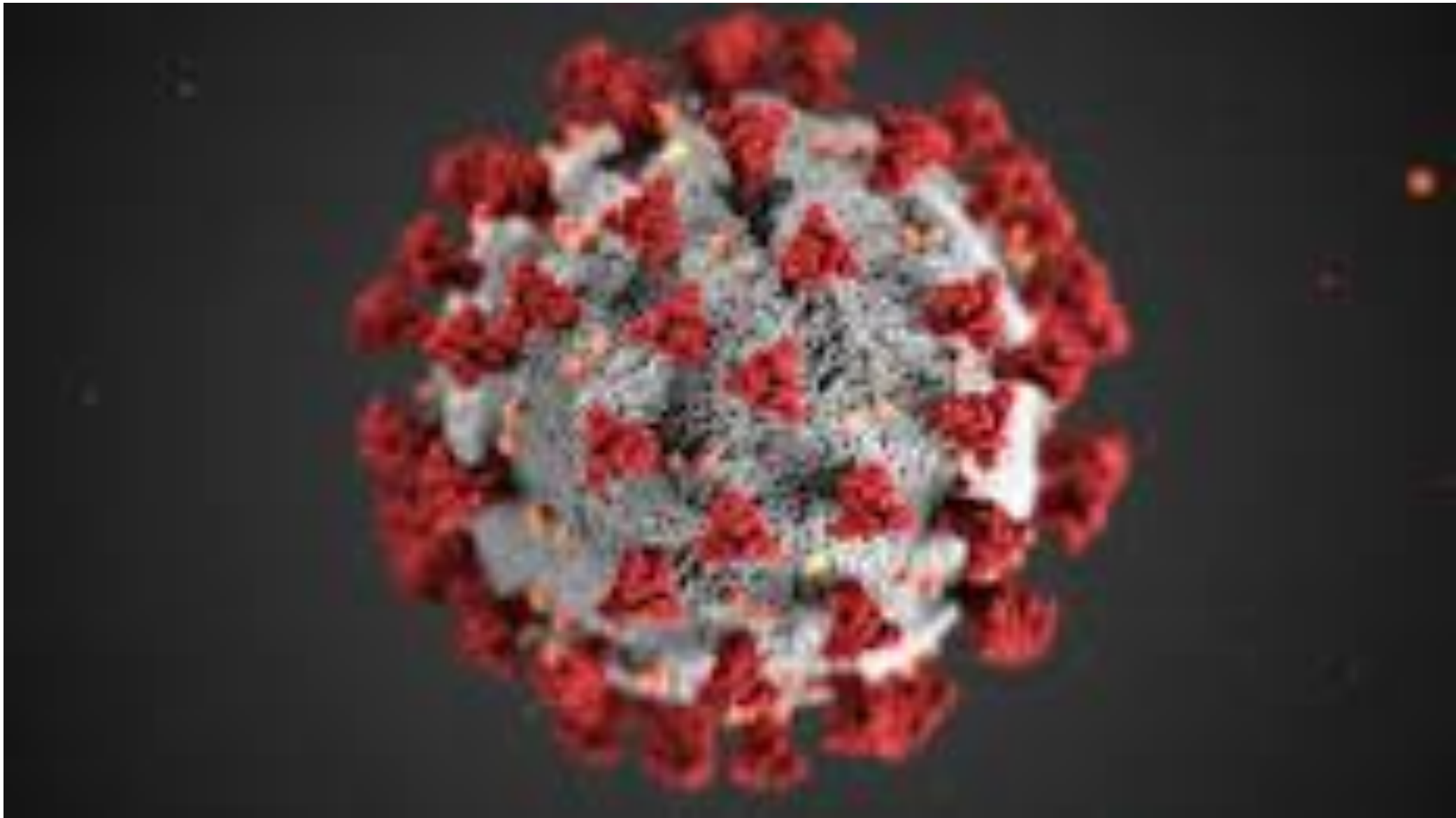
# Cardiovascular Disease - The Next Pandemic?

13 November 2024



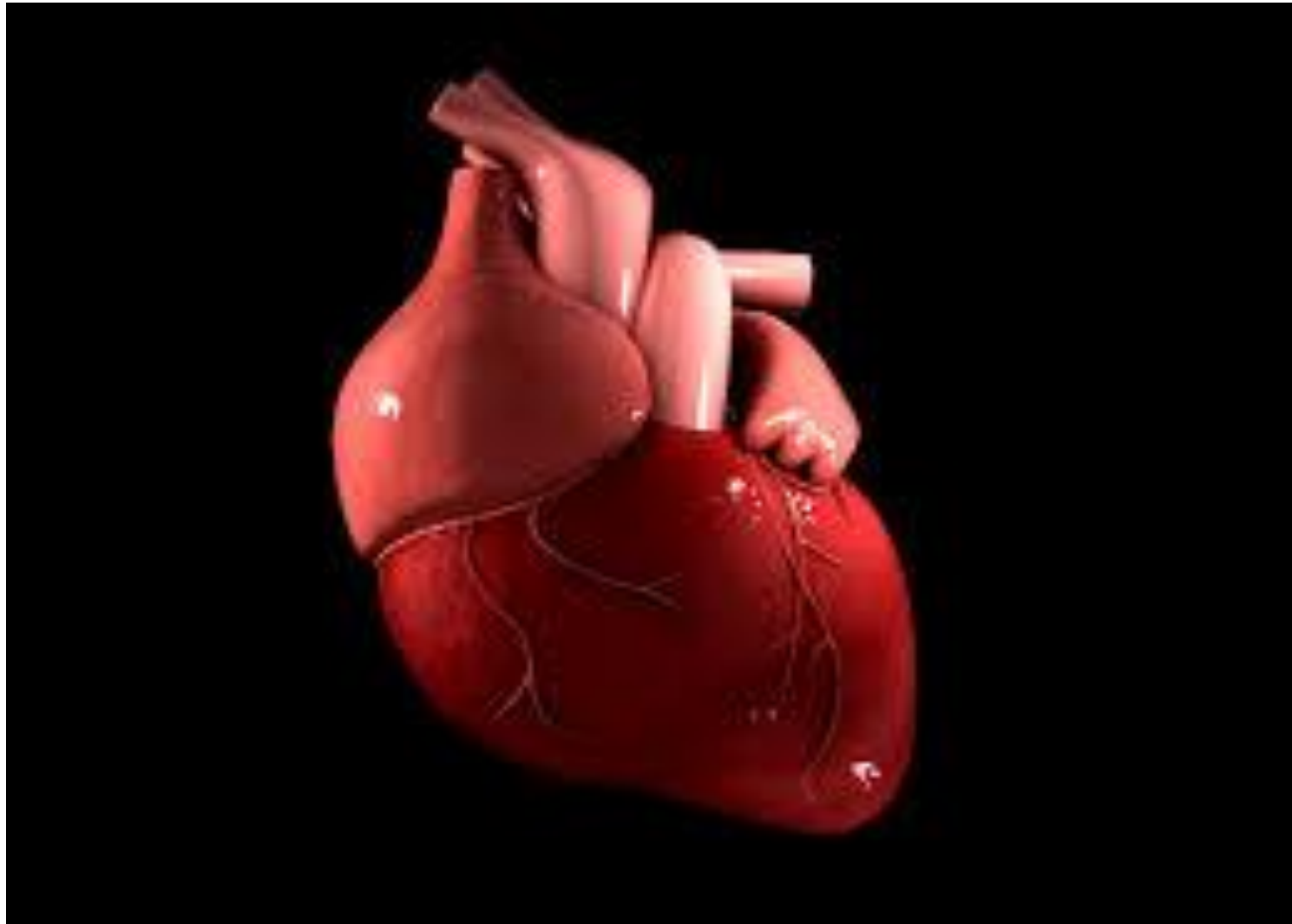
Dr David Leiper





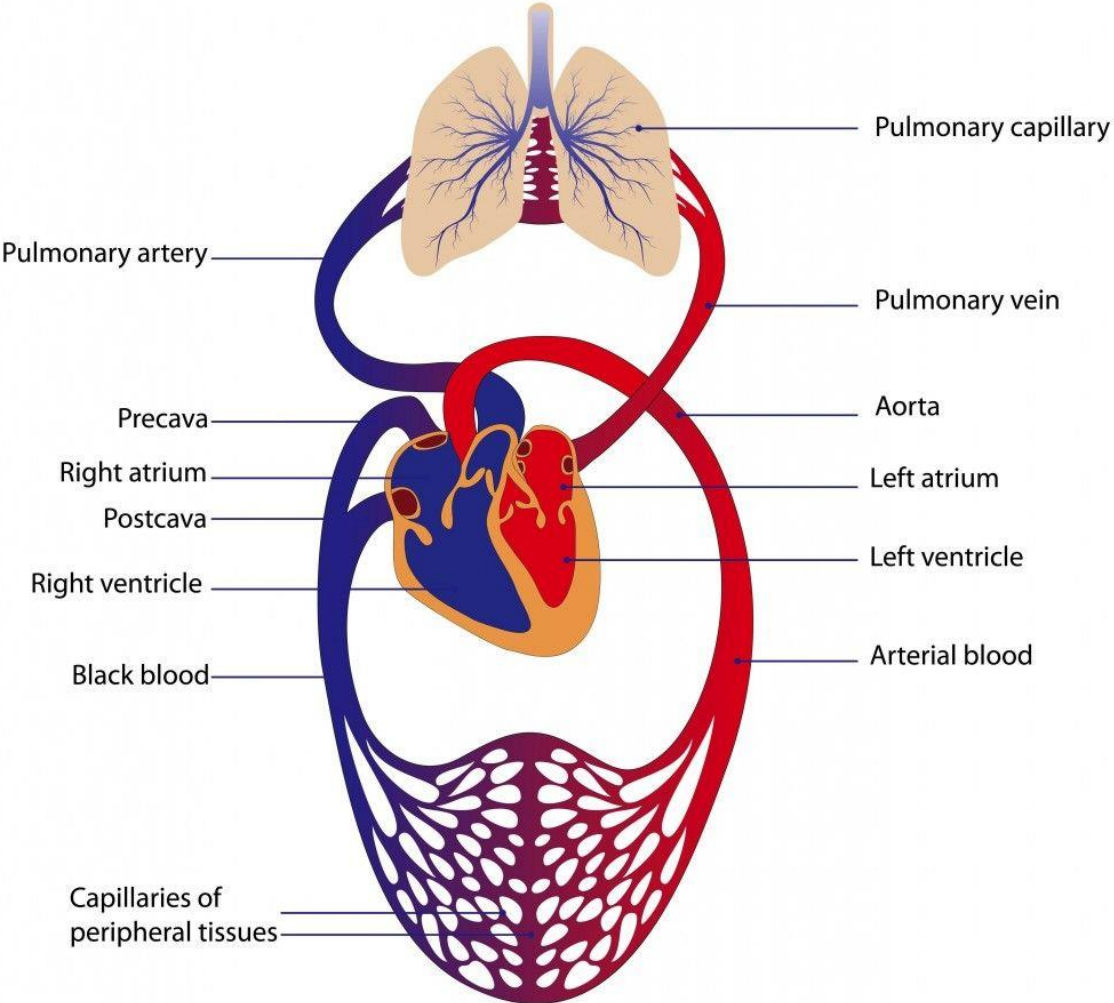








# Circulation





# 7.6 million

people are living with heart and circulatory diseases in the UK

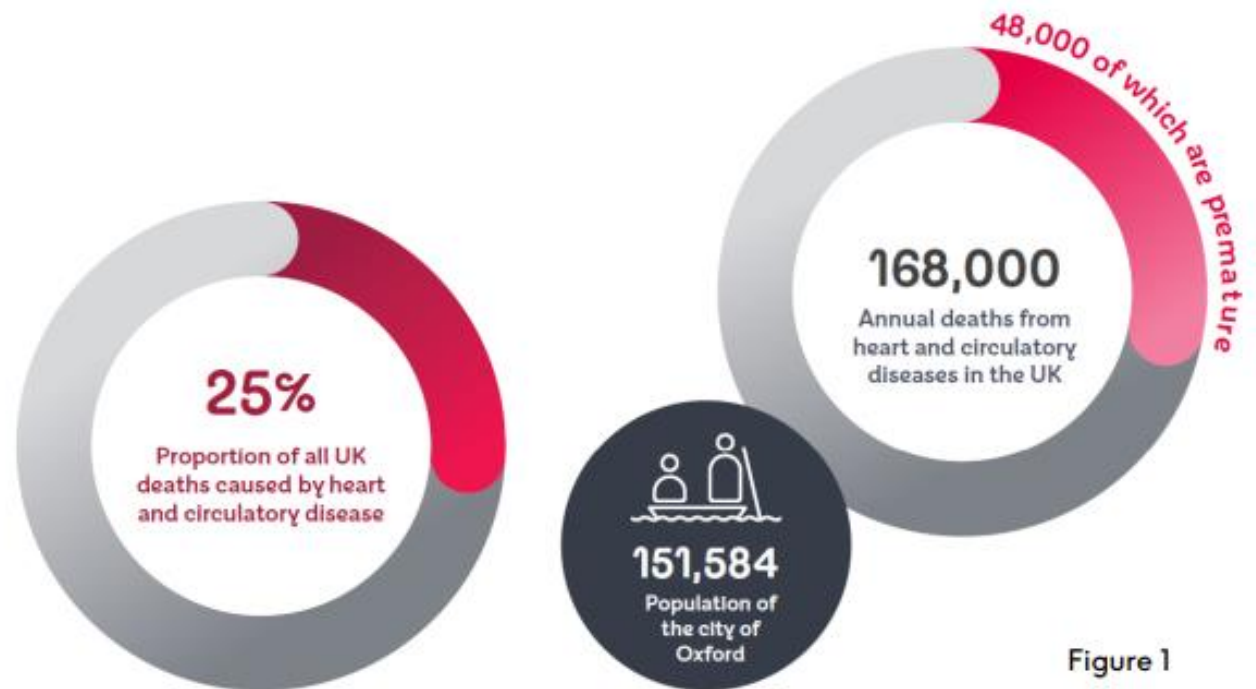
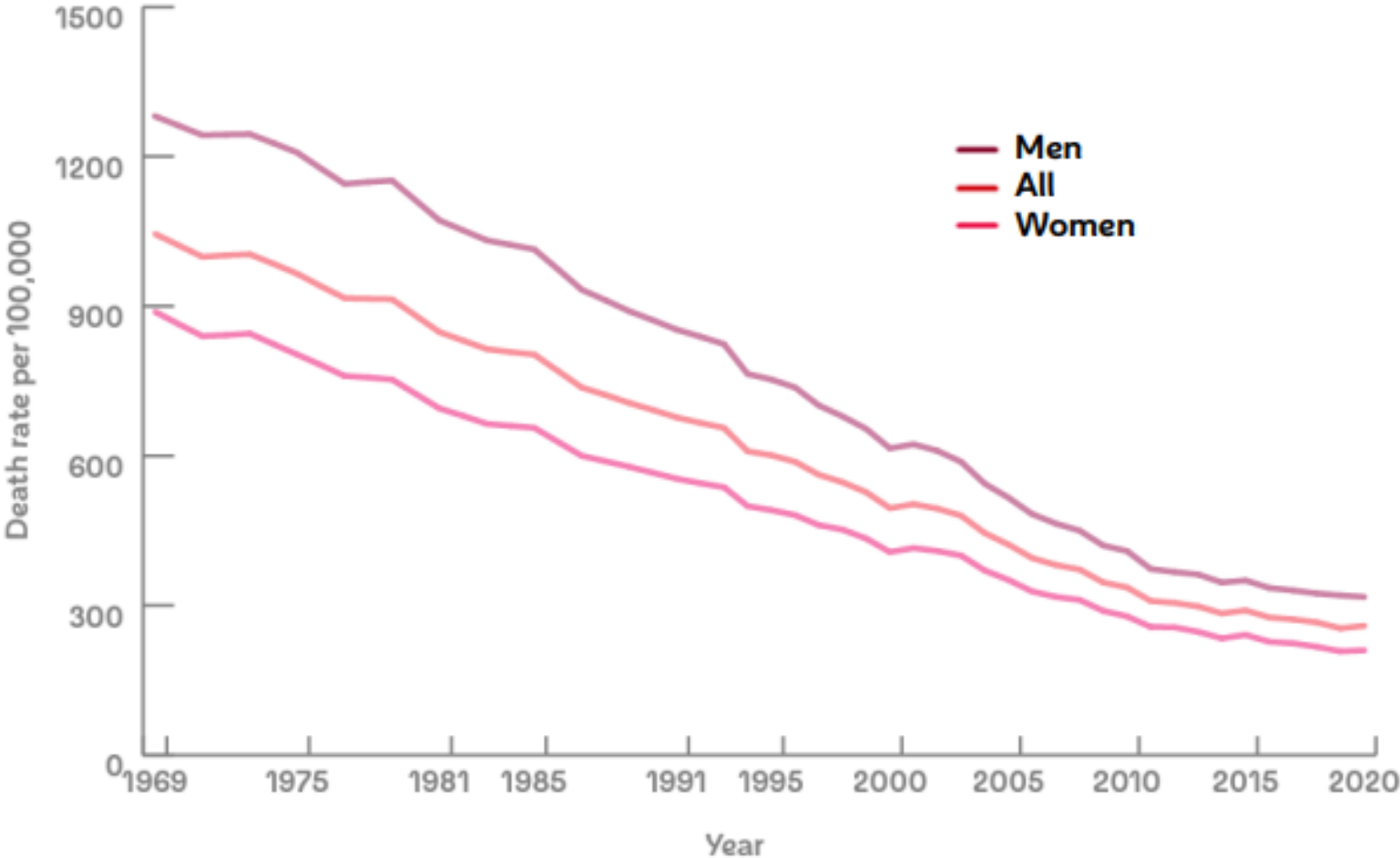


Figure 1

Death rates from heart and circulatory diseases (CVD), UK, 1969 to 2020



## Coronary Heart Disease (CHD; IHD; Ischaemic Heart Disease)

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Coronary heart disease (CHD) is the most common type of heart and circulatory disease. It occurs when coronary arteries become narrowed by a build-up of atheroma, a fatty material within their walls. The pain or discomfort felt from such narrowing is called angina and if a blockage occurs it can cause a myocardial infarction (heart attack).

- CHD is the one of the UK's leading causes of death and the most common cause of premature death.
- It is also the leading cause of death worldwide.
- CHD is responsible for around 66,000 deaths in the UK each year, an average of 180 people each day, or one death around every eight minutes.
- In the UK, one in eight men and one in 14 women die from coronary heart disease.
- CHD kills more than twice as many women in the UK as breast cancer – it even kills more women prematurely (before their 75th birthday).



# Heart Attack (Myocardial Infarction; MI)

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- In the UK as many as 100,000 hospital admissions each year are due to heart attacks; that's 260 admissions each day or 1 every 5 minutes.
- In the 1960s more than 7 out of 10 heart attacks in the UK were fatal. Today at least 7 out of 10 people survive.
- It is estimated that around 1.4 million people alive in the UK today have survived a heart attack – around 1 million men and 380,000 women.

## Stroke (Cerebrovascular Disease; CBVD)

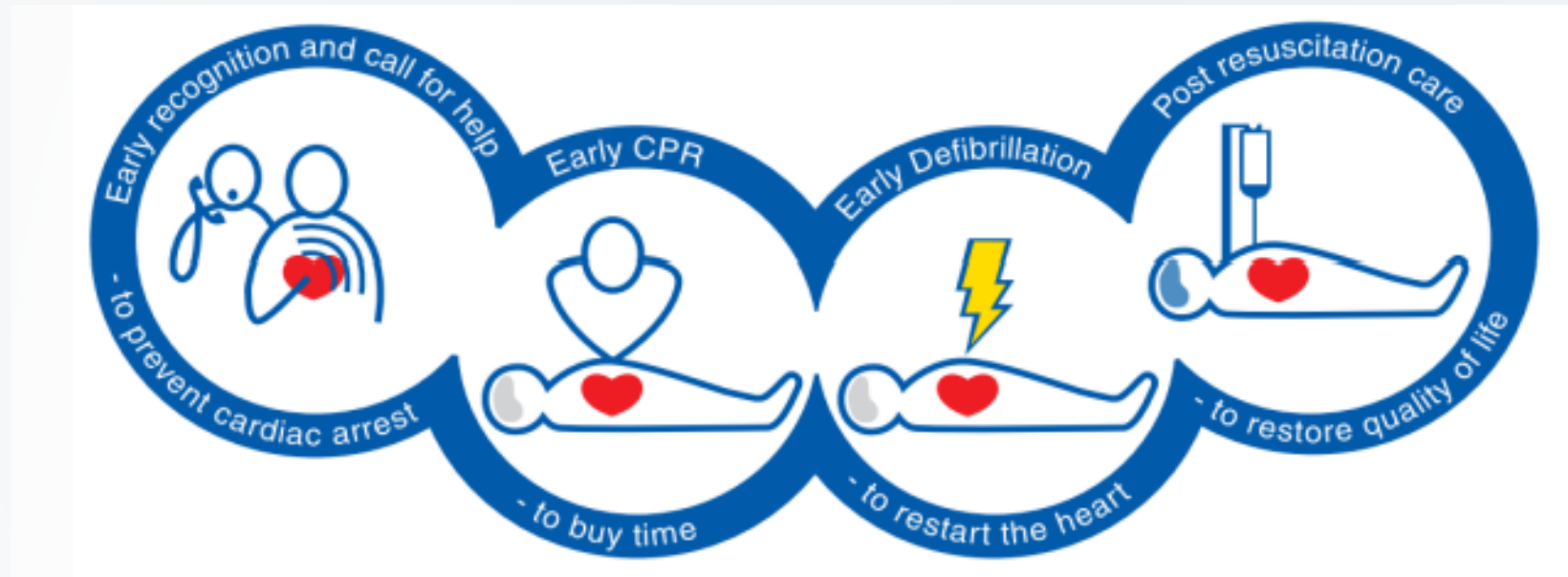
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- Stroke is one of the biggest killers in the UK, causing around 34,000 deaths each year.
- There are more than 100,000 strokes in the UK each year. That's a stroke at least every 5 minutes.
- Around 1.3 million people living in the UK have survived a stroke or transient ischaemic attack (TIA).
- Around 1 in 4 strokes in the UK occur in people of working age.
- Stroke is the single biggest cause of severe disability in the UK.



## Out-of-Hospital Cardiac Arrest (OHCA)

- There are more than 30,000 out-of-hospital cardiac arrests (OHCAs) in the UK each year.
- The overall survival rate in the UK is less than 1 in 10.
- Every minute without cardiopulmonary resuscitation (CPR) and defibrillation reduces the chance of survival by up to 10 per cent.
- Performing CPR can more than double the chances of survival.



# Risk Factors



# Non-modifiable risk factors



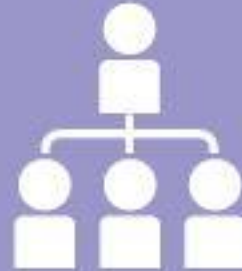
## Age

CVD risk increases with age



## Sex

Before the age of 60, men are at greater risk of developing CVD than pre-menopausal women. Post-menopausal women have similar CVD risk to men



## Family history

The risk may be greater if close blood relatives have experienced an early CVD event



## Ethnicity

Individuals with African or Asian ancestry and indigenous populations are at higher risk of CVD

Around **28%**

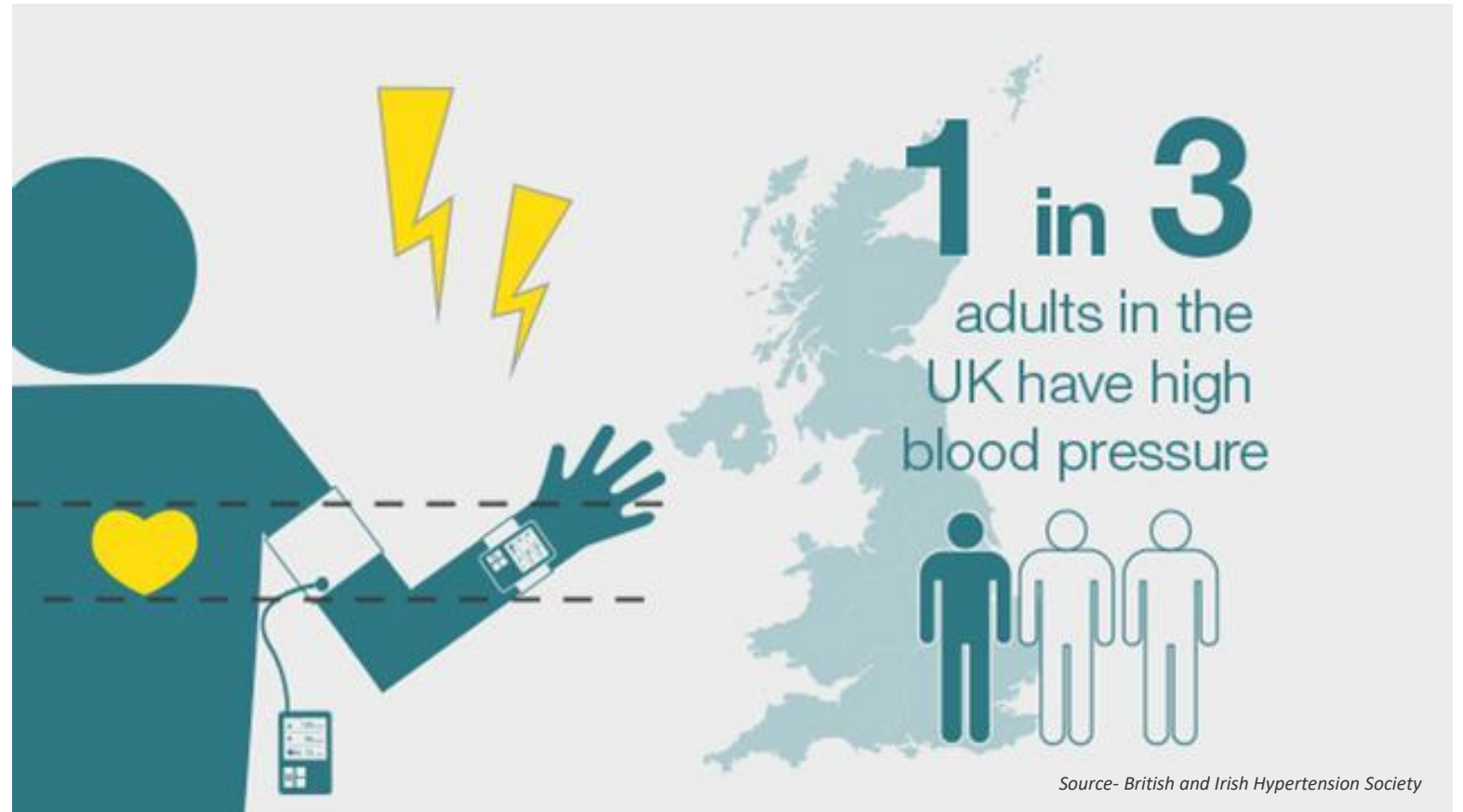


of adults have  
high blood pressure  
in the UK

# Hypertension (High Blood Pressure)

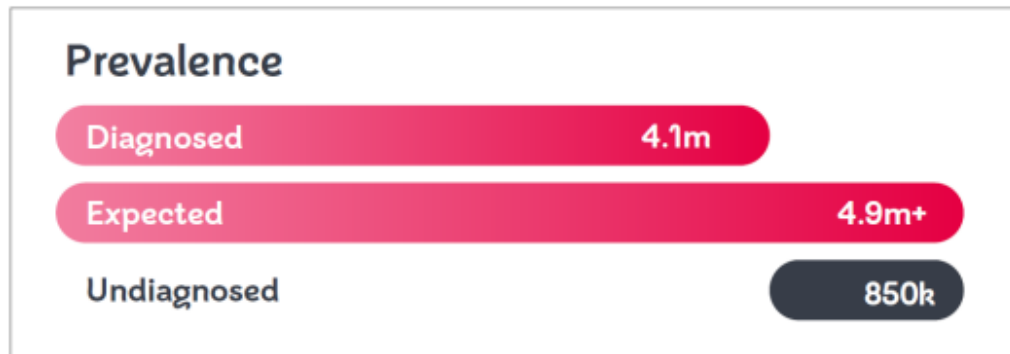
Persistent high blood pressure can increase your risk of serious and potentially life-threatening health conditions, such as:

- Heart disease
- Heart attacks
- Strokes
- Heart failure
- Peripheral arterial disease
- Aortic aneurysms
- Kidney disease
- Vascular dementia

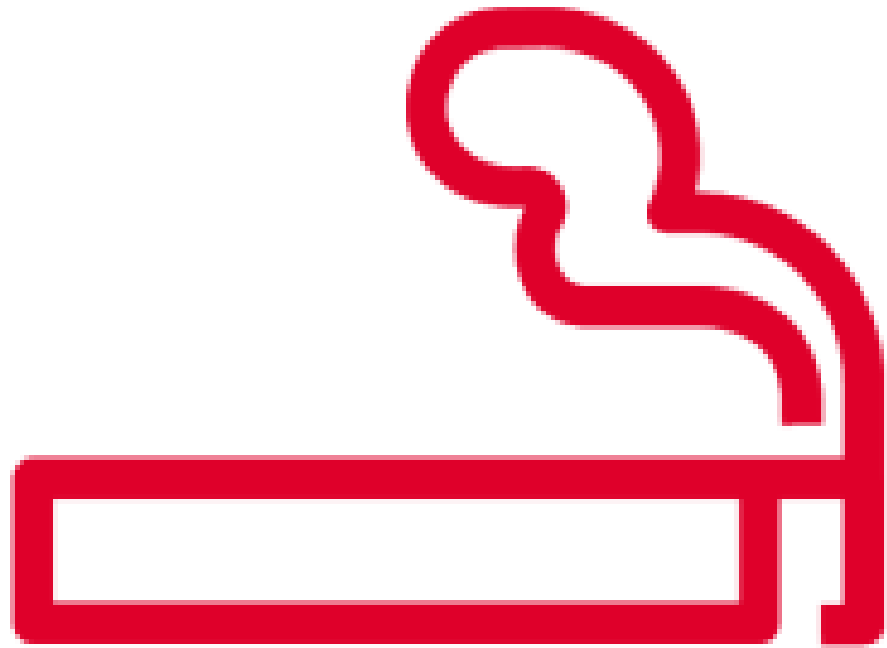


# Diabetes

Diabetes is a condition in which blood sugar levels are elevated over a prolonged period of time. This results in damage to the inner lining of blood vessels. Consequently, diabetes is a significant risk factor for heart and circulatory diseases (CVD).



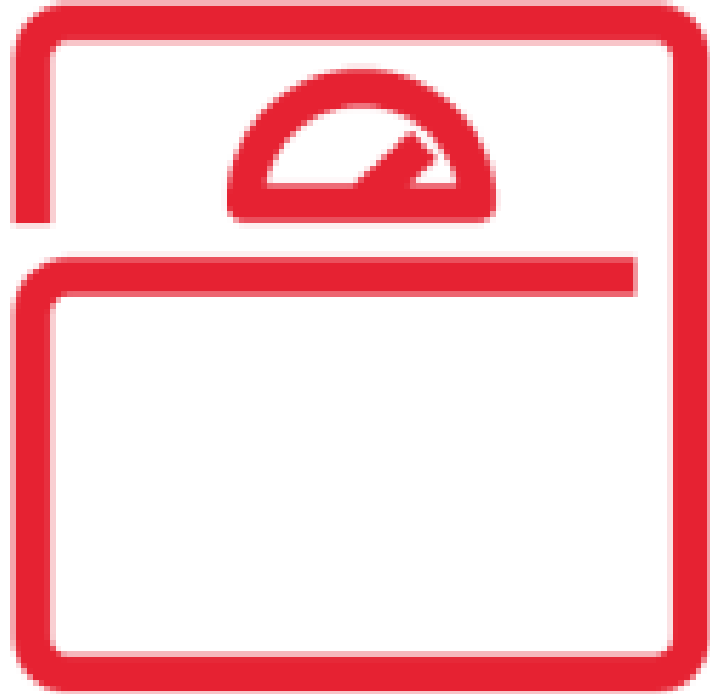
In the UK **one third** of adults with diabetes die from a heart or circulatory disease



At least

1 in 8

adults smoke  
in the UK



Around

**28%**

of adults in the  
UK have obesity

# Fitness and mobility has an impact on safety offshore

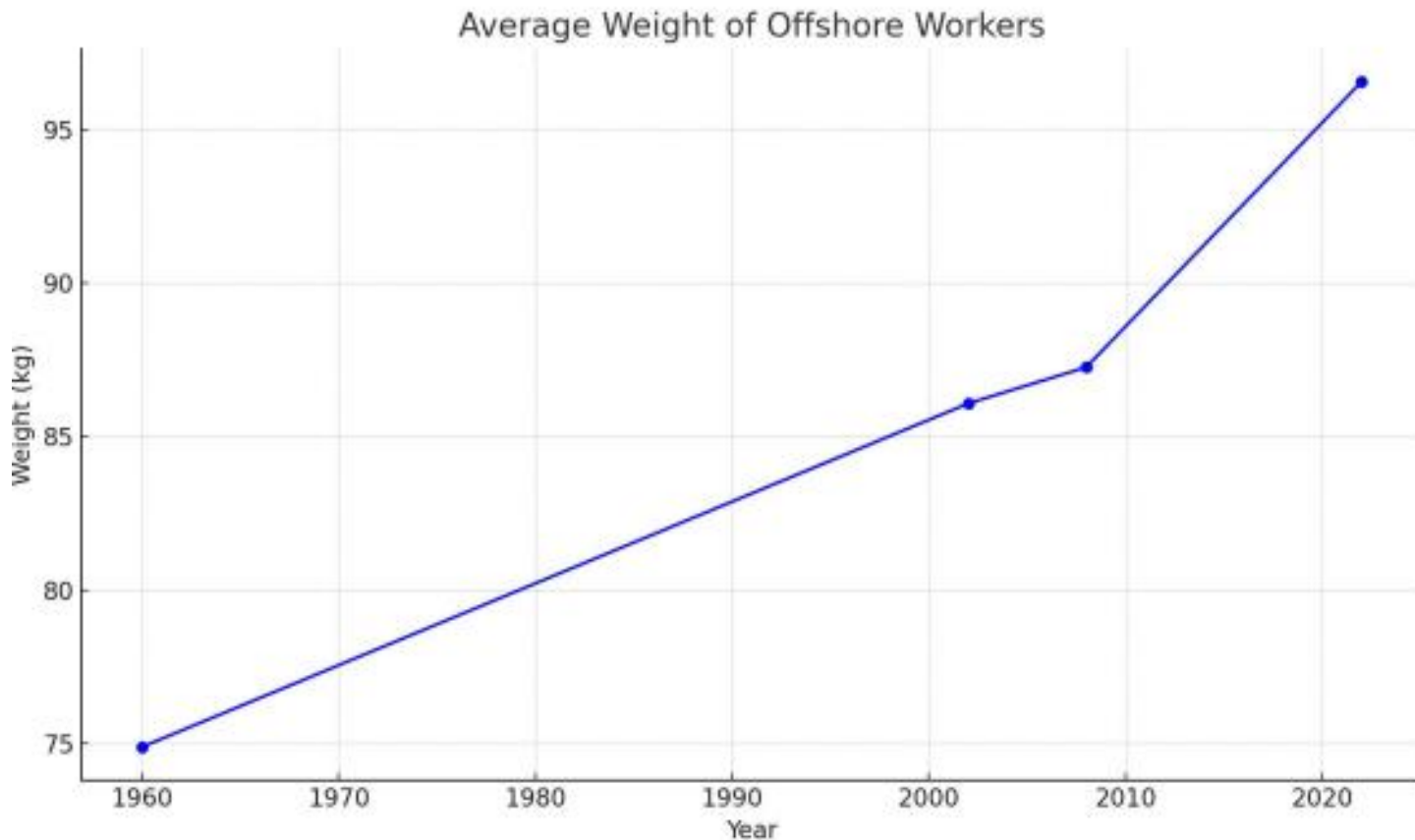
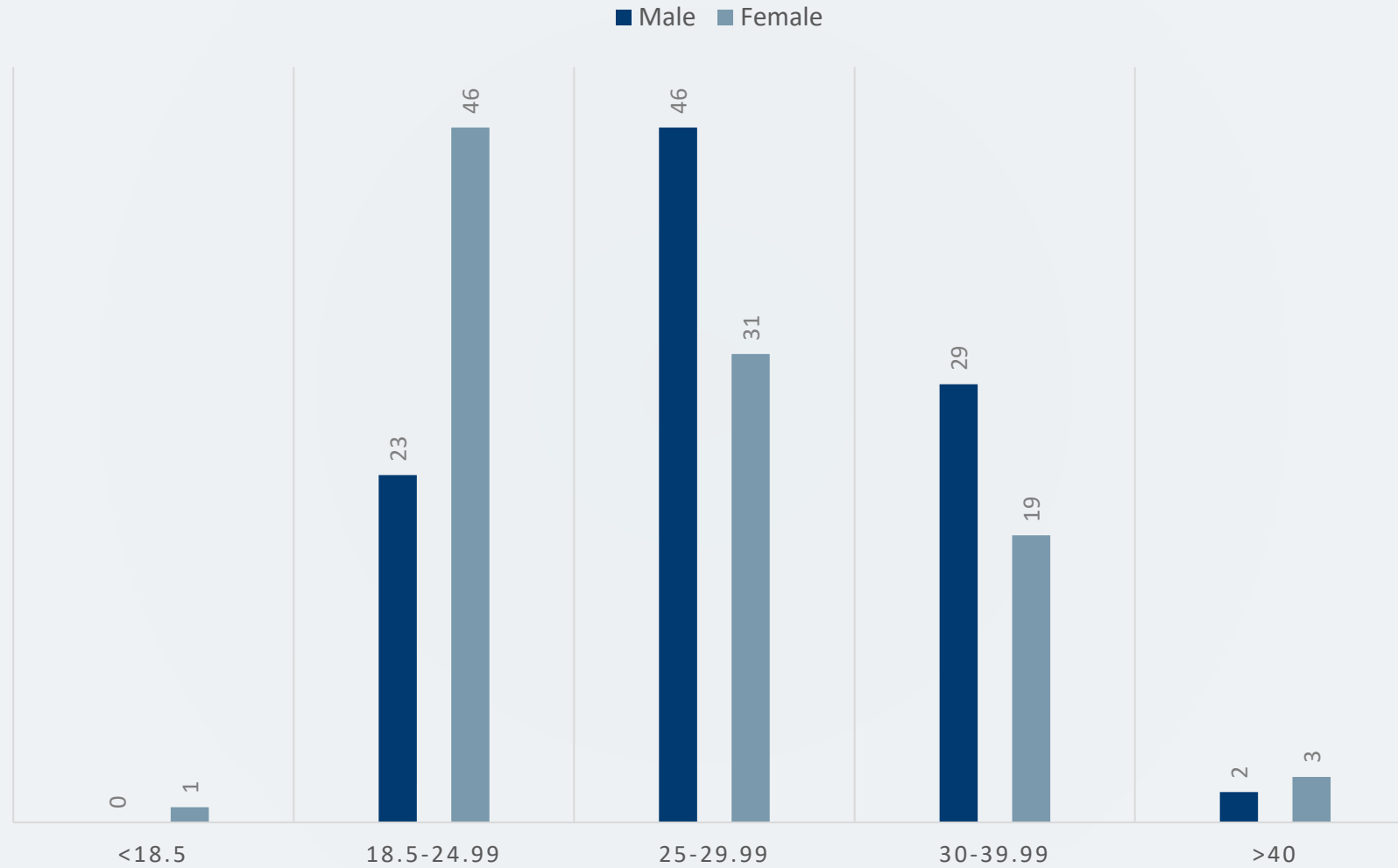


Chart 1: Average weights for offshore populations 1960 – 2022

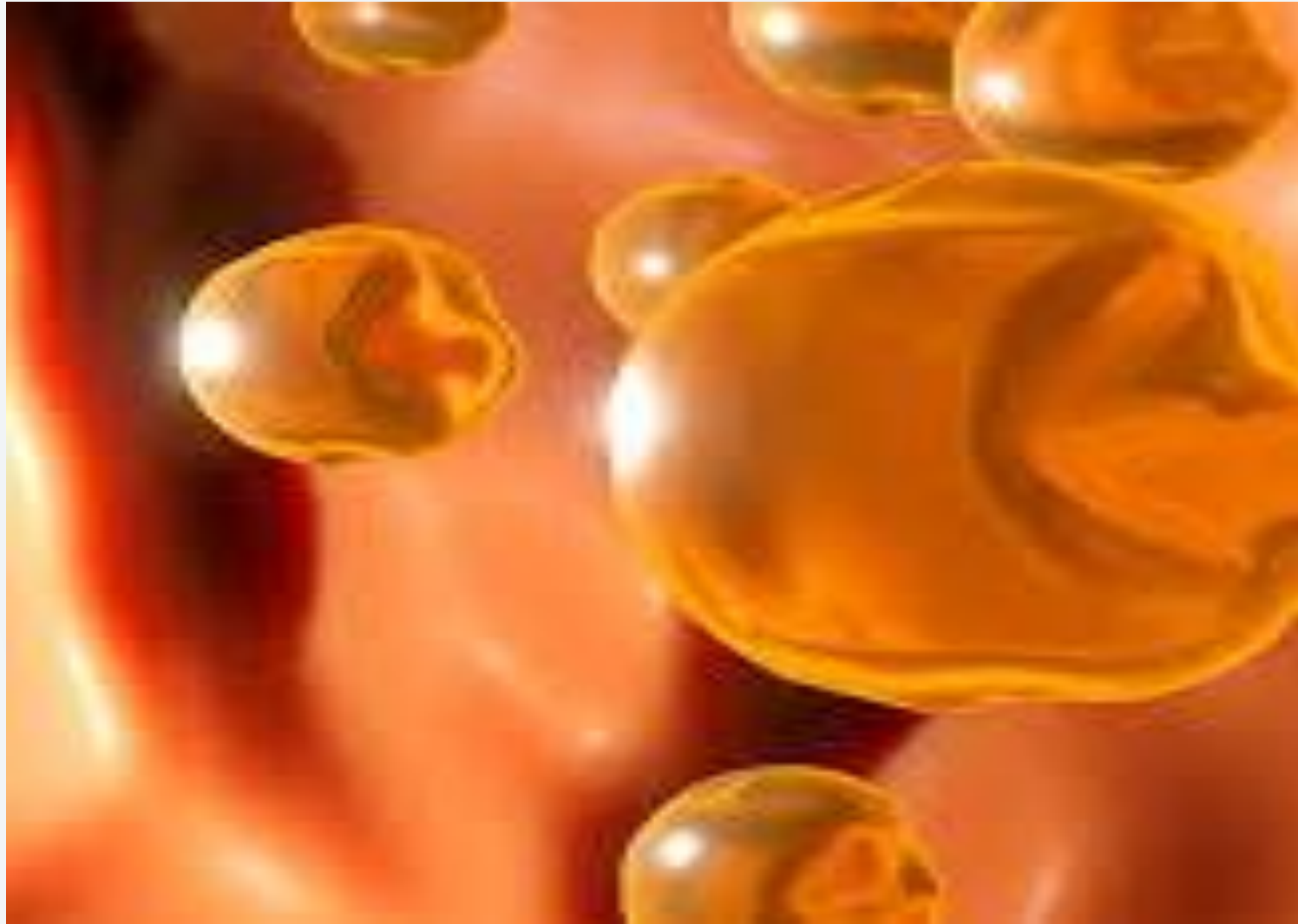
Source: Report on the identification of hazards related to the weight, size, and shape of offshore oil and gas workers in the UK, OEUK

- The weight, size and shape of offshore workers has been identified as a concern following incidents and issues over the past few decades
- This can be an issue in several areas, including:
  - Mobilisation and helicopter travel
  - Offshore operations
  - Installation emergencies
  - Evacuation procedures
  - Physical demands of the job

# Body Mass Index



Body Mass Index in Energy Sector- ISOS Hearts and Minds paper



## Diet and Exercise

- Only around a quarter of adults consume the recommended minimum five portions of fruit and vegetables per day.
- Around a quarter of adults in the UK exceed national guidelines for weekly alcohol intake; no level of use is without risk.
- More than one in three (35 per cent) of adults in the UK do not achieve recommended levels of physical activity (150 minutes each week).

**Being more physically active can reduce the risk of developing heart and circulatory diseases by as much as 35 per cent**

Around  
**35%**   
of adults in the UK do not meet  
physical activity recommendations

What can we do?



**Healthy eating**



**Staying active**



**Managing your weight**



**Understanding risk factors**

