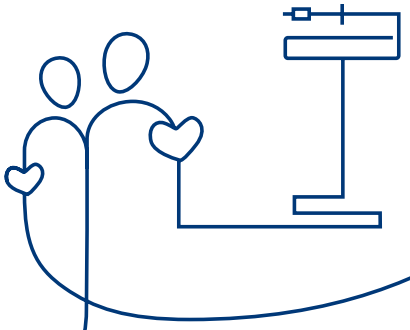
Obesity is a serious, chronic, and multifactorial disease[1,2]



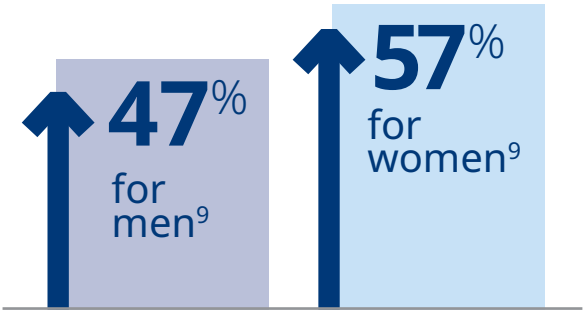
Understand how excess adipose tissue behaves in the body

Obesity is a multifaceted driver of cardiovascular disease (CVD)[3,4]

CVD is the leading cause of death for adults with obesity[5]

Obesity can lead to CVD and CV-related death, independent of other CVD risk factors[4,6-8]

Obesity was associated with an increased risk of CV events[a]



[a]Figures are unadjusted event rates for middle-aged men and women (index age 40-59 years). Obesity was defined as having a BMI of 30 to 39.9 kg/m². The rate of cardiovascular events was 20.21 per 1000 person-years in men with obesity versus 13.72 per 1000 person-years in men with a normal BMI. The rate of cardiovascular events was 9.97 per 1000 person-years in women with obesity versus 6.37 per 1000 person-years in women with a normal BMI. A normal BMI was defined as 18.5 to 24.9 kg/m². The study looked at various cardiovascular events, including fatal and nonfatal myocardial infarction, fatal and nonfatal stroke, congestive heart failure, cardiovascular death, and non-cardiovascular death.[9]

Obesity is defined as an excess accumulation of adipose tissue that may impair health[10]

Adipose tissue is an endocrine organ that interacts with multiple organs and tissues[11]

The organs and tissues in the body include (among others):

BMI=body mass index; CV=cardiovascular.

Obesity creates a biological landscape of pathological processes[6,12]

Adipose tissue, specifically adipocytes, can cause widespread effects to the organs by sending signals within the body[13]

Many different active biological substances may be released by adipose tissue within the body[11,b]

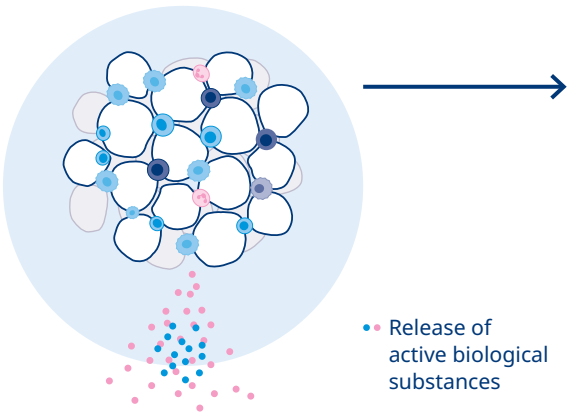
Examples include:

- Cytokines (inflammatory substances)[14]
- Hormones[11]
- Reactive oxygen species (chemicals that cause damage)[12]

[b]The substances released by adipose tissues depend on their locations and specific pathological conditions occurring within the body.

Adipose tissue may become dysfunctional and influence various pathological processes[6,12]

Dysfunctional adipose tissue[12]



Processes include[12,c]:

- Chronic inflammation
- Oxidative stress
- Insulin resistance
- Endothelial dysfunction
- Other metabolic disturbances

These processes, and others, can influence CV risk by[12,15-17]:

- Promoting vascular breakdown
- Causing both structural and functional myocardial damage

[c]This list is not exhaustive. There are other processes that play a role in driving CV risk.

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