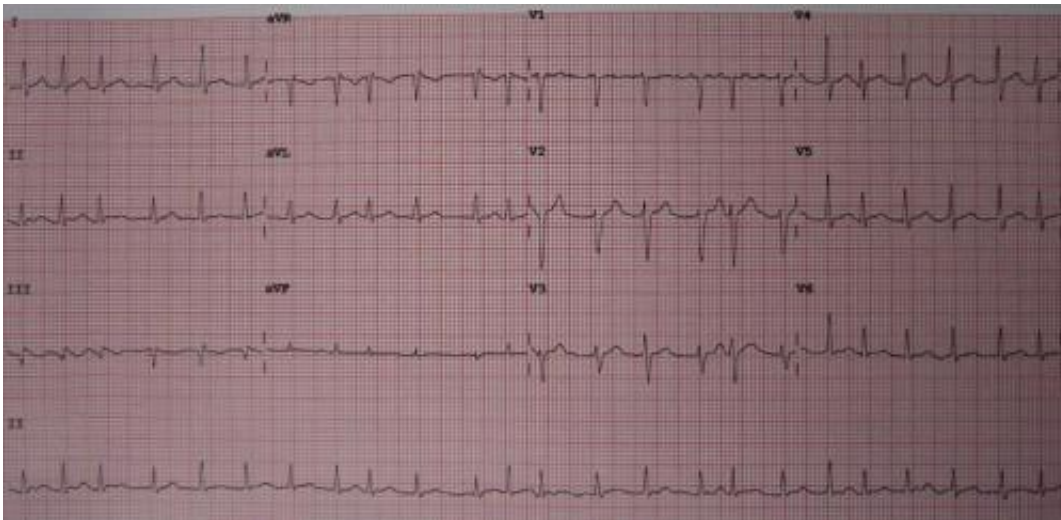


# Atrial fibrillation among overweight people is not due to fat

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A 12 lead ECG showing atrial fibrillation at approximately 150 beats per minute.  
Credit: James Heilman, MD/Wikipedia/CC BY-SA 3.0

In a recently published study, researchers from Aarhus University document that the risk of atrial fibrillation is not linked to the amount of body fat, but instead to large muscle mass, or more precisely, a high fat-free weight.

Researchers from Aarhus University document that the risk of atrial fibrillation is not linked to the amount of body fat, but instead to a high fat-free weight. Senior Researcher at the Research Unit for General Practice, Morten Fenger-Grøn (picture), is behind the study together

with Consultant Cardiologist and Clinical Associate Professor at the Department of Clinical Medicine, Lars Frost.

Atrial fibrillation affects as many as one in three persons in the industrialized/Western world during a lifespan. And when it comes to preventing the condition, the medical doctor's best advise is often weight loss. However, a new study from Aarhus University shows that the risk of atrial fibrillation is not linked to the amount of fat, but rather to the fat-free weight.

Senior Researcher at the Research Unit for General Practice, Morten Fenger-Grøn, is behind the study together with Consultant Cardiologist and Clinical Associate Professor at the Department of Clinical Medicine, Lars Frost.

"While it's correct that overweight individuals have a clearly elevated risk of atrial fibrillation, there is no clear evidence that fat is of any significance when we adjust for these individuals' high fat-free mass. Conversely, it appears that people with high fat-free weight do have a high risk, regardless of whether they have a lot of fat on their body or not," explains Morten Fenger-Grøn.

## **Overweight has been blamed**

The results have just been published in the journal *Trends in Cardiovascular Medicine*.

"In many people's eyes, large muscle mass is likely seen as the opposite of high body fat, but it turns out that to some extent, the same people have a lot of both. And when these people have a high risk of atrial fibrillation, we tend to interpret it as proof that too much fat is harmful," explains Morten Fenger-Grøn.

According to the researcher, many people have undiagnosed atrial fibrillation.

"Our results point to the importance of remembering to also look for this condition in people who are muscular and without overwhelming body fat—even though they appear to be very healthy and robust," he says.

## **New cause of atrial fibrillation**

However, he emphasises that the results encompass only the risk of atrial fibrillation and do not gainsay that too much body fat increases the incidence of infarctions, diabetes and many other health problems.

"Unfortunately for all of us who struggle with our weight, the results don't provide a basis for ripping all the pages out of the textbooks which warn against being overweight. Yet it's reasonable enough to get rid of the sections that suggest a [causal link](#) to atrial fibrillation which runs via inflammation caused by adipose tissue. That in itself may be a very important realisation," says Morten Fenger-Grøn.

He adds, "It's a reminder that the causal mechanisms behind atrial fibrillation are completely different than those behind many other heart diseases—and sometimes almost the opposite. It's important to really understand this if we are to prevent that the occurrence of atrial fibrillation keeps increasing, while those for other heart conditions are declining."

## **The research results—more information**

The study, which is based on a review of the literature on the importance of body fat and fat-free mass for the risk of atrial [fibrillation](#), also contains a meta-analysis which summarises the results of all relevant

studies in the field.

The starting point for the work was, among other things, the research group's own study: "Lean Body Mass Is the Predominant Anthropometric Risk Factor for Atrial Fibrillation", in which they analysed the [body](#) mass of 56,000 participants in the Danish 'Diet, Cancer and Health' project.

Provided by Aarhus University

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