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# Hidden Fat Boosts Death Risk: A Dangerous Revelation

## Description

A new study shows that having more fat around muscles can increase the risk of heart disease, regardless of weight. This fat is called intermuscular fat.

Researchers found that intermuscular fat can lead to problems like insulin resistance and type 2 diabetes. It can also affect heart health.

The study involved 669 people who had heart-related symptoms. They were examined using special scans to measure fat and muscle in their bodies.

People with higher levels of intermuscular fat were more likely to have heart problems. Even a small increase in intermuscular fat raised the risk of heart issues.

Having more lean muscle, on the other hand, reduced the risk of heart problems. The study suggests that storing fat in muscles can cause inflammation and damage to blood vessels.

Further research is needed to understand this link better and find ways to prevent heart diseases.

The study was published in the European Heart Journal.

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## Vocabulary List:

1. **Intermuscular** /,ɪntər'mʌs.kjʊ.lər/ (adjective): Relating to the space between muscles.
2. **Resistance** /rɪ'zɪs.təns/ (noun): The ability to withstand or oppose something often used in a medical context.
3. **Inflammation** /,ɪn.flə'meɪ.jən/ (noun): A localized physical condition characterized by redness swelling and pain in response to injury or infection.
4. **Symptoms** /'sɪm.ptəmz/ (noun): Physical or mental features that indicate a condition or disease.
5. **Examine** /ɪg'zæm.ɪn/ (verb): To inspect or look at closely in order to learn more about its condition.
6. **Published** /'pʌb.lɪʃt/ (verb): To make content available to the public often in written form.

## Comprehension Questions

### Multiple Choice



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1. What does the study show regarding the relationship between fat around muscles and heart disease risk?
    - Option: Having more fat around muscles decreases the risk of heart disease
    - Option: Fat around muscles has no impact on heart disease risk
    - Option: Having more fat around muscles increases the risk of heart disease
    - Option: Lean muscle has no effect on heart health
  
  2. According to the study, what problems can intermuscular fat lead to?
    - Option: Obesity only
    - Option: Type 1 diabetes
    - Option: Insulin resistance and type 2 diabetes
    - Option: High blood pressure
  
  3. How many people were involved in the study on intermuscular fat and heart-related symptoms?
    - Option: 399
    - Option: 500
    - Option: 669
    - Option: 800
  
  4. What does having more lean muscle do in relation to heart problems?
    - Option: Increases the risk of heart problems
    - Option: Has no effect on heart health
    - Option: Reduces the risk of heart problems
    - Option: Causes insulin resistance
  
  5. What did the study suggest about storing fat in muscles?
    - Option: It has no impact on blood vessels
    - Option: Causes no inflammation
    - Option: Can cause inflammation and damage to blood vessels
    - Option: Improves heart health
  
  6. Where was the study on intermuscular fat and heart diseases published?
    - Option: European Heart Journal
    - Option: New England Journal of Medicine
    - Option: Journal of Cardiology
    - Option: British Medical Journal

**True-False**



7. Having more intermuscular fat decreases the risk of heart diseases.
8. The study suggested that lean muscle can increase the risk of heart problems.
9. Insulin resistance is one of the problems that intermuscular fat can lead to.
10. The research was conducted on 800 individuals.
11. Storing fat in muscles has no impact on blood vessels.
12. Further research is deemed unnecessary to explore the link between intermuscular fat and heart diseases.

### Gap-Fill

13. The study involved \_\_\_\_\_ people who had heart-related symptoms.
14. Even a small increase in intermuscular fat raised the risk of heart \_\_\_\_\_.
15. Having more lean muscle reduced the risk of heart \_\_\_\_\_.
16. The study was published in the \_\_\_\_\_ Heart Journal.
17. \_\_\_\_\_ research is needed to understand this link better and find ways to prevent heart diseases.
18. Researchers found that intermuscular fat can lead to problems like insulin resistance and type 2 \_\_\_\_\_.

### Answer

**Multiple Choice:** 1. Having more fat around muscles increases the risk of heart disease 2. Insulin resistance and type 2 diabetes 3. 669 4. Reduces the risk of heart problems 5. Can cause inflammation and damage to blood vessels 6. European Heart Journal

**True-False:** 7. False 8. False 9. True 10. False 11. False 12. False

**Gap-Fill:** 13. 669 14. issues 15. problems 16. European 17. Further 18. diabetes



## Vocabulary quizzes

### Multiple Choice ( Select the Correct answer for each question. )

1. What are the structures that contain genetic information in a cell?  
Option: Proteins  
Option: Chromosomes  
Option: Enzymes  
Option: Lipids
2. Which term refers to planets that orbit stars outside our solar system?  
Option: Galaxy  
Option: Exoplanets  
Option: Plasma  
Option: Cephalopods
3. What term describes the variety of different species in an ecosystem?  
Option: Predators  
Option: Complex  
Option: Diversity  
Option: Intermuscular
4. What is the body's response to injury or infection characterized by redness and swelling?  
Option: Symptoms  
Option: Inflammation  
Option: Resistance  
Option: Ecosystem
5. What term refers to new findings or revelations?  
Option: Discoveries  
Option: Astronomers  
Option: Solar Systems  
Option: Researchers
6. Which term describes something from a long time ago?  
Option: Evolved  
Option: Ancient  
Option: Puzzling  
Option: Plasma
7. What term describes the gradual development or change of something over time?



- Option: Astronomers
- Option: Galaxy
- Option: Evolved
- Option: Ecosystem

8. Who are the individuals who conduct experiments and studies to advance knowledge in a particular field?

- Option: Paleontologists
- Option: Galaxy
- Option: Plasma
- Option: Researchers

9. What is the ability to withstand or oppose something?

- Option: Inflammation
- Option: Symptoms
- Option: Resistance
- Option: Evolving

10. Which term refers to animals that hunt and feed on other animals?

- Option: Intermuscular
- Option: Discover
- Option: Predators
- Option: Plasma

**Gap-Fill ( Fill in the blanks with the correct word from the vocabulary list. )**

11. A collection of an organism's complete set of \_\_\_\_\_ is called a genome.

12. Patients should report any unusual \_\_\_\_\_ to their healthcare provider.

13. Scientists make careful \_\_\_\_\_ to collect data for their research.

14. Technology is constantly \_\_\_\_\_ to meet the changing needs of society.

15. The study results were \_\_\_\_\_ in a scientific journal.

16. The mysterious disappearance of the artifact left archaeologists \_\_\_\_\_ over its whereabouts.

17. Squid and octopus are examples of \_\_\_\_\_ .



18. The fourth state of matter after solid liquid and gas is \_\_\_\_\_ .
19. Our planetary system is an example of a \_\_\_\_\_ .
20. \_\_\_\_\_ study celestial bodies like stars planets and galaxies.

**Matching Sentences ( Match each definition to the correct word from the vocabulary list. )**

21. Athletes focus on building strength in their muscles including those that are .
22. Scientists are always eager to new insights into the mysteries of the universe.
23. use powerful telescopes to observe and analyze distant celestial objects.
24. Our solar system is located in the Milky Way a vast collection of stars and planets.
25. The Amazon rainforest is home to a multitude of plant and animal species forming a complex .
26. study ancient life forms by examining fossils and geological records.
27. The coral reef ecosystem contains a wide of marine organisms in various shapes and colors.
28. Neural networks are powerful tools used to solve problems that traditional algorithms struggle with.
29. Researchers gain valuable into human behavior through psychology studies.
30. In the sun's core hydrogen undergoes fusion to form the hot ionized gas known as .

**Answer**

**Multiple Choice:** 1. Chromosomes 2. Exoplanets 3. Diversity 4. Inflammation 5. Discoveries 6. Ancient 7. Evolved 8. Researchers 9. Resistance 10. Predators

**Gap-Fill:** 11. Genomes 12. Symptoms 13. Observations 14. Evolving 15. Published 16. Puzzling 17. Cephalopods 18. Plasma 19. Solar Systems 20. Astronomers

**Matching sentence:** 1. Intermuscular 2. Discover 3. Astronomers 4. Galaxy 5. Ecosystem 6. Paleontologists 7. Diversity 8. Complex 9. Insights 10. Plasma

**CATEGORY**

- 1. Health - LEVEL2

**Date Created**

2025/02/02



**Author**  
aimeeyoung99

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