



Understanding the effects of a 7-day fast on the body and its potential for significant weight loss

Description

Section: Health

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A groundbreaking study sought to explore the health implications of a seven-day water fast, revealing fascinating insights into how the human body responds to extreme dietary practices.

In the study, published in *Nature Metabolism*, volunteers embarked on a week-long journey of water fasting - only allowed to drink water while abstaining from any food intake. As might be anticipated, individuals experienced substantial weight loss, but the study also shed light on other intriguing transformations within the human body.

Surprisingly, these fasting-induced changes weren't entirely detrimental. The researchers concluded that fasting triggered changes in whole-body protein levels that influenced some organs to function more effectively; in particular, the supporting structures for neurons in the brain.

Claudia Langenberg, the study's author, stated, "For the first time, we can observe the molecular changes across the body during fasting." According to Langenberg, after three days of total caloric restriction, the health benefits of fasting become apparent, which contradicts previous assumptions.

Conducted by professors at Queen Mary University of London and the Norwegian School of Sports Sciences, the study analyzed 12 volunteers throughout the fasting period. The team tracked daily changes in protein levels to comprehend how the body responds to severe caloric restriction.

As the fast unfolded, the participant's bodies began sourcing energy from fat stores rather than calories. This transition to a "fast mode" energy sourcing was a key finding for the team. Within the initial 72 hours of fasting, bodies used these fat stores leading to an average loss of about 12.5 pounds of both fat and lean mass. Interestingly, after resuming normal eating post-fast, individuals regained their lost lean mass but did not regain the lost fat mass.

"Our results affirm that fasting, when conducted safely, is a potent approach to weight loss," Langenberg announced.

The study also revealed that fasting caused changes in protein levels across various organs, particularly within the neuron structures in the brain. Maik Pietzner, another study author, noted, "These findings elucidate why fasting is recommended for certain conditions." However, Pietzner also warned that fasting may not be suited for everyone, especially those currently in ill health.

Fasting has often been associated with other health benefits apart from weight loss, such as mitigating signs of Alzheimer's and aging. Before embarking on a water fast, individuals should consult a doctor, as



some studies link fasting to a higher risk of Type 2 diabetes and fertility problems.

As per Healthline, water fasting may lower blood pressure and prevent diseases. Despite the potential advantages, fasting must be practiced judiciously and under medical supervision, as it can trigger muscle loss, exacerbate medical conditions, and lead to dehydration.

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Vocabulary List:

1. **Implications** // (noun): Possible effects or consequences of an action or condition.
2. **Fascinating** // (adjective): Extremely interesting or captivating.
3. **Abstaining** // (verb): Refraining from doing or enjoying something.
4. **Intriguing** // (adjective): Arousing curiosity or interest.
5. **Detrimental** // (adjective): Harmful or damaging.
6. **Contradicts** // (verb): Denies or goes against what was previously stated.

Vocabulary quizzes



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

1. Which word best describes an extremely wicked and villainous action?
Option: Peddle
Option: Neighborhood
Option: Nefarious
Option: Dispatch
2. What is the process of administering a vaccine to protect against a specific disease?
Option: Immunity
Option: Culminate
Option: Vaccination
Option: Precautions
3. What are recommended principles or rules to assist in a particular situation?
Option: Implications
Option: Guidelines
Option: Advisories
Option: Elderly
4. Which term means harmful or damaging?
Option: Detrimental
Option: Contradicts
Option: Unpleasant
Option: Controversial
5. What word describes something complete or including all aspects of a subject?
Option: Instigating
Option: Comprehensive
Option: Fascinating
Option: Abstaining
6. Which term refers to a person's facial features or expression?
Option: Engagement
Option: Extramarital
Option: Physiognomy
Option: Apprehensive
7. What is the term for the state of being free from public attention or observation?
Option: Deception
Option: Privacy
Option: Innocence



Option: Abusive

8. Which word means to bring about or initiate?

- Option: Abusive
- Option: Instigating
- Option: Extramarital
- Option: Precautions

9. Which term is used to describe something that causes disagreement or argument?

- Option: Implications
- Option: Fascinating
- Option: Controversial
- Option: Abstaining

10. Which word best describes something extremely unpleasant?

- Option: Intriguing
- Option: Odious
- Option: Detrimental
- Option: Dispatch

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

11. An _____ is a claim or assertion that someone has done something illegal or wrong.
12. The _____ woman was helped across the street by a kind passerby.
13. The decision to change suppliers had far-reaching financial _____ for the company.
14. In order to maintain his fitness goals he was _____ from eating sugary snacks.
15. The plot of the movie was so _____ that it kept the audience guessing until the end.
16. The magician used sleight of hand to create an illusion of _____.
17. Their _____ was announced at a family gathering bringing cheers and hugs from all.
18. Before starting the experiment the students were instructed to take necessary _____.
19. The scandal involved an _____ affair that led to the downfall of a prominent



politician.

20. She was _____ about the outcome of her job interview hoping for the best but fearing the worst.

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

21. The smell from the garbage bin made everyone hold their noses in disgust.
22. Travelers are urged to follow health and stay informed about any local safety concerns.
23. Vaccines help boost the body's natural to fight off infections.
24. The documentary about marine life was so that it inspired many to learn more about the ocean.
25. His statement completely what he had said earlier causing confusion among the listeners.
26. The surprise of finding a spider in the shoe startled the hiker.
27. The rumors were aimed at unrest among the students leading to a chaotic situation.
28. The study covered all aspects of the research topic leaving no stone unturned.
29. Despite the in her eyes some doubted her involvement in the crime.
30. His behavior towards his colleagues eventually led to his dismissal.

Answer

Multiple Choice: 1. Nefarious 2. Vaccination 3. Guidelines 4. Detrimental 5. Comprehensive 6. Physiognomy 7. Privacy 8. Instigating 9. Controversial 10. Odious

Gap-Fill: 11. allegation 12. elderly 13. implications 14. abstaining 15. intriguing 16. deception 17. engagement 18. precautions 19. extramarital 20. apprehensive

Matching sentence: 1. odious 2. advisories 3. immunity 4. fascinating 5. contradicts 6. unpleasant 7. instigating 8. comprehensive 9. innocence 10. abusive

CATEGORY

1. Health - LEVEL4

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