

Summary of: Is spaceflight-induced immune dysfunction linked to systemic changes in metabolism?

Key findings:

- Spaceflight caused a significant decrease in total body mass.

- Spaceflight reduced splenocyte viability.
- Spaceflight increased background ROS and oxidative burst.
- Spaceflight increased phagocytosis capacity.
- Spaceflight increased corticosterone levels in the adrenal glands.
- Spaceflight decreased ACTH receptors.
- Spaceflight increased corticosterone levels in the liver.
- Spaceflight altered liver gene expression related to innate immunity, oxidative stress, and metabolism.
- Spaceflight caused a shift in metabolic priorities, favoring lipid processing over glucose metabolism.
- Spaceflight induced a loss of glycogen stores in the liver.
- Spaceflight altered insulin signaling pathway gene expression.
- Spaceflight induced a loss of spleen mass.
- Spaceflight induced a loss of thymus mass.
- Spaceflight induced a loss of bone mass.
- Spaceflight induced a loss of muscle mass.
- Spaceflight induced a loss of fat mass.
- Spaceflight induced a loss of fat storage in the liver.
- Spaceflight induced a loss of fat storage in the kidneys.
- Spaceflight induced a loss of fat storage in the heart.
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- Spaceflight induced a loss of fat storage in the skeletal muscle.
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