

# Rest mass

**Rest mass** (physics), the [mass](#) of something that is not moving. All [matter](#) has some rest mass. [Energy](#), such as light or kinetic energy (the energy of a moving object) has no rest mass because it causes no change in [spacetime](#) in a frozen time frame. However, energy affects mass while time passes; therefore, it affects spacetime, so it has mass.<sup>[1]</sup>

## References

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1. [↑ "What is rest mass? How to explain it especially to the high school students?". PhysLink. Retrieved 2009-10-06.](#)

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