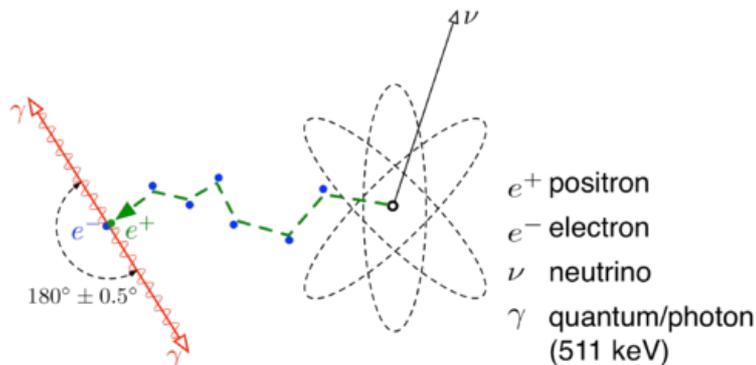


# Annihilation

**Annihilation** is a phenomenon in which a **particle** and an **antiparticle** come together. By combining, both original particles disappear and particles of a different type are created.

In medicine, this phenomenon is commonly observed when a positron and an electron interact, emitting two photons of energy 0.51 MeV flying in opposite directions. An example of this radiation is the  $\beta^+$  emitter in PET or electron-positron pairs diagnostics.



Scheme of the collision of an electron with a positron, the formation of two photons of gamma radiation.

## Links

### Related articles

- Electron-positron pairs
- Photoelectric effect

### References

- KUPKA, Karel. *Nukleární medicína*. 6th edition. P3K, 2015. ISBN 9788087343548.

### External links

- Annihilation