

Primary wave = p-wave

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Synonym: [Primary wave \(p-wave\)](#) = [Compressional wave](#)

A [body wave](#) caused by oscillation of a normal [stress](#) in a [matter](#) and as such resulting in [strain](#) oscillations along the direction of [p-wave](#) propagation.

In terms of corpuscular structure of the [matter](#) the [p-wave](#) is characterised by the fact that particles of the [matter](#) are moving back and forth along the [p-wave](#) travel direction (see **Fig. 1**).

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Fig. 1.1. Plane p-wave	Fig. 1.2. Spherical p-wave

[P-wave](#) can propagate through gases, liquids or solids and moves faster than other [body waves](#) (almost twice faster than [s-wave](#)).

When all [body waves](#) are excited at the same time the [p-wave](#) is the first arrival to the sensor, hence the name "primary".

See also

[Physics](#) / [Mechanics](#) / [Continuum mechanics](#) / [Mechanical waves](#) / [Body wave](#)

[[s-wave](#)]