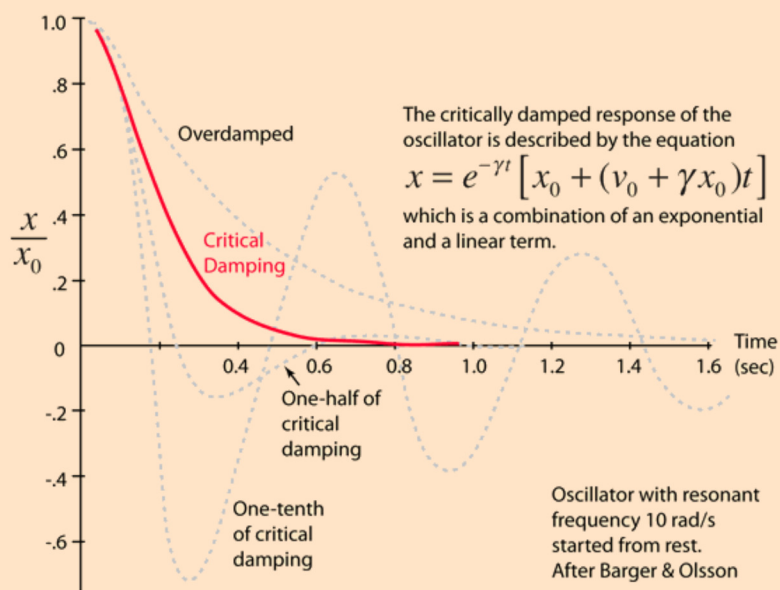


Critical Damping



Critical damping provides the quickest approach to zero amplitude for a [damped oscillator](#). With less damping ([underdamping](#)) it reaches the zero position more quickly, but oscillates around it. With more damping ([overdamping](#)), the approach to zero is slower. Critical damping occurs when the [damping coefficient](#) is equal to the [undamped resonant frequency](#) of the oscillator.

[Damped Oscillator](#) [Underdamped oscillator](#) [Overdamped oscillator](#)

[HyperPhysics](#)**** [Mechanics](#)

R Nave

[Index](#)

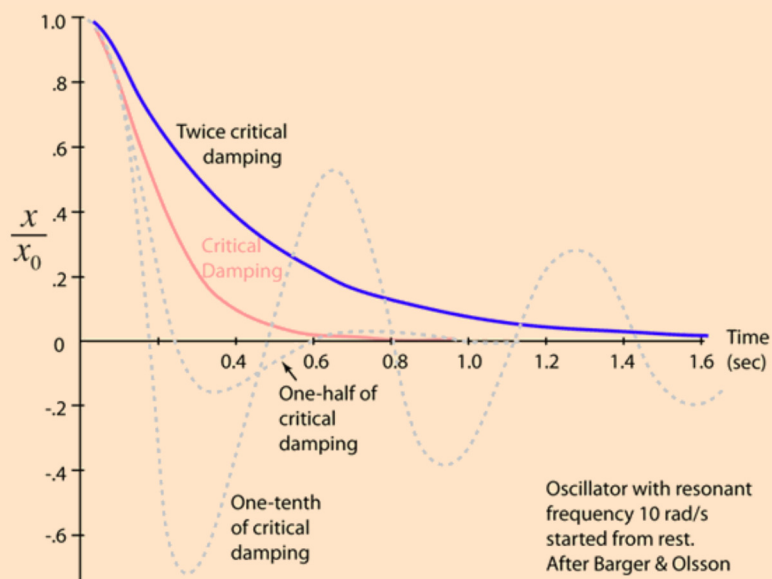
[Periodic motion concepts](#)

Reference

[Barger & Olsson](#)

[Go Back](#)

Overdamped Oscillator



Overdamping of a [damped oscillator](#) will cause it to approach zero amplitude more slowly than for the case of [critical damping](#). The [damping coefficient](#) is greater than the [undamped resonant frequency](#).

[Index](#)

[Periodic motion concepts](#)

Reference

[Barger & Olsson](#)

Damped Oscillator Underdamped oscillator Critical damping

HyperPhysics **** Mechanics

<i>R Nave</i>

Go Back
