

### Answer on Question #60291-Physics-Mechanics-Relativity

Using physics concepts explain how you would lessen the force of impact as you catch a ball?

#### Answer

The good idea is to have your hand extended forward when you are getting ready to catch a fast-moving baseball with your bare hand. Having your hand forward means that you can move your hand back with the ball, slowing it down over a greater distance – and also over a greater time. This reduces the force you need to apply to the ball, and consequently reduces the force you feel.

It is because the force you feel is given by the equation:

$$F = \frac{\Delta P}{\Delta t} = \frac{\Delta(mv)}{\Delta t} = m \frac{\Delta(v)}{\Delta t}.$$

<https://www.AssignmentExpert.com>