

## Pain Perception

While the **perception of pain** occurs when an individual becomes aware of a pain stimulus, it involves far more than mere sensation. There is an affective and emotional component that is quite important. The perception of even acute and immediate pain is highly dependent on the context in which it is experienced. There are many reports of individuals engaged in highly intense situations (like war and battle) that can sustain injuries as bad as a compound fracture but feel only a “twinge” of pain. Focusing one’s attention on the pain or the cause of the pain makes the experience much worse. Many care providers have noticed that any distractions for a person in pain helps their ability to cope. Along the lines of mental coping with pain, we see that a person’s belief about pain and social expectations about pain can influence the intensity of the pain. There is a learned response to pain. Patients can learn to expect pain with certain procedures and many have reported severe pain even before the procedure started or anything had even touched them.

The limbic system is important in the processing of emotions. This neurological system is also important in modulating the amount of pain experienced for a given nociceptive stimulus. Interestingly, many areas of the brain that are stimulated by noxious stimuli are also activated by depression and social rejection. Anxiety, fear, and a lost sense of control increase the intensity of the pain experience. Treating anxiety and depression helps improve pain and can even reduce analgesic drug use.

It has been shown that patients in severe pain who also have frontal lobectomies can still feel the sensation of severe pain, but it just doesn’t “bother” them as much.

These multifaceted contributors to pain make the study of pain and pain treatments difficult. Also, the true effects of a treatment are always clouded by the placebo and nocebo effects.



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