

# ***DL-Phenylalanine***

Phenylalanine is an essential amino acid found in common protein foods. Phenylalanine comes in L- and D- (from dextro for right) forms. The directions refer to minor differences in the amino acids' molecular structure, as evidenced by light refraction. [L-phenylalanine](#) is predominantly a nervous system stimulant, mood enhancer, and appetite suppressant. While D-phenylalanine also apparently has antidepressant properties, it is taken primarily to control chronic pain. Synthetic [DL-phenylalanine](#) (DLPA) is half L-phenylalanine and half D-phenylalanine. DLPA has some of the effects of both forms of phenylalanine, although most people take it for the pain-relieving effects of D-phenylalanine.

## ***Applications***

- Back pain, arthritis, dental pain
- Enhance beneficial effects of acupuncture
- May help relieve pain symptoms associated with drug withdrawal

## ***Recent findings***

- DL-phenylalanine markedly potentiates opiate analgesia - an example of nutrient/pharmaceutical up-regulation of the endogenous analgesia system. (Russell AL, McCarty MF.) In the author's clinical experience, concurrent treatment with DL-phenylalanine (DLPA) often appears to potentiate pain relief and also ease depression in patients receiving opiates for chronic non-malignant pain.

## ***How does it work?***

With the help of essential cofactors (such as pyridoxine, a form of vitamin B6), the body transforms phenylalanine in a series of steps into the amino acid [tyrosine](#) and then into the important neurotransmitters dopamine and noradrenaline. These neurotransmitters affect brain and nervous system function to elevate mood and increase alertness. D-phenylalanine has also been shown to promote the action in the brain of the small protein molecules known as endorphins and enkephalins. These are natural, morphine-like biochemicals that reduce pain and promote mild euphoria. D-phenylalanine is thought to work by inhibiting the enzymes that normally break down endorphins and enkephalins. This allows endorphins and enkephalins to stay active longer, thus enhancing mood and preventing the perception of pain. D-phenylalanine can also be converted in the body into the compound phenylethylamine, which is thought to have mood-boosting effects.

## ***Suggested Supplements***

Vitamin B6