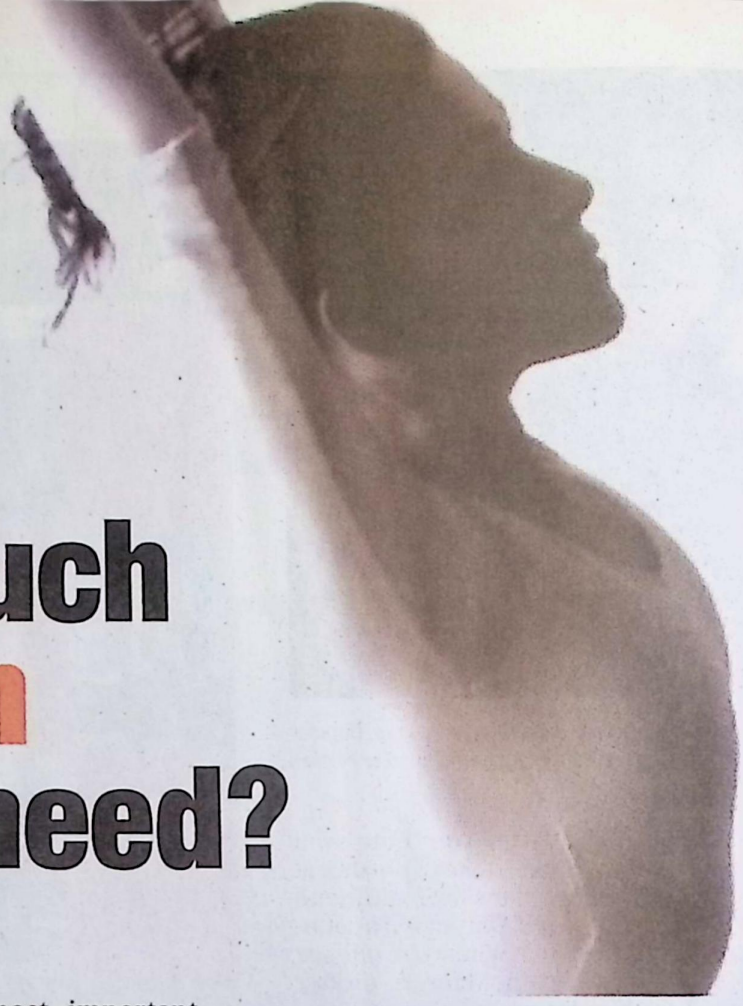


How much Calcium do we need?

DR.SHAMIM AHMED

CALCIUM is one of the most important elements in the diet because it is a structural component of bones, teeth, and soft tissues and is essential in many of the body's metabolic processes. It accounts for 1 to 2 percent of adult body weight, 99 percent of which is stored in bones and teeth. The physiological functions of 99% of the body calcium is to build and maintain skeletal tissues (bones and tooth formation).The remaining 1% of the body's calcium performs a number of vital physiological functions such as blood clotting, muscle contraction and relaxation, regulating heart functioning, transmission of nervous system messages, milk production and metabolism of hormones and enzymes.

Because of its biological importance, calcium levels are carefully controlled in various compartments of the body. The three major regulators of blood calcium are parathyroid hormone, vitamin D, and calcitonin. The parathyroid hormone is normally released by the four parathyroid glands in the neck in response to low calcium levels in the bloodstream (hypocalcemia). The Parathyroid hormone acts in three main ways: It causes the gastrointestinal tract to increase calcium absorption from food; it causes the bones to release some of their calcium stores; and it causes the kidneys to excrete more phosphorous, which indirectly raises calcium levels.

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It is important to remember that proper calcium absorption absolutely requires an adequate level of vitamin D, through diet or by supplement.