**Guest Editorial** 

# **Calcium Tablets in Clinical Application**

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#### Introduction

Deficiency in calcium composition in different organs may lead to different symptoms and diseases. Many patients neglect its biological importance in regions and conditions. Calcium element plays key roles for human nerve, muscle, bone, membrane and vessels. Its wide-range of biological effect have great therapeutic significances.

## Physiological conditions

Bone pain or fracture is a common clinical symptom, such as calcium deficiency in the clinic [1-3]. Calcium tablets are well known agents or drugs for promoting bone-related health and function of human beings. Different types of calcium tablets are suitable for a variety of human age-ranges and individual condition. In a whole period of human life, only two physiological stages (adolescence and elderly) need general calcium fortification in foods or calcium tablets [2-5]. Calcium tablets are popular in many regions and countries. However, there is a need for understanding their application and indications. There is a great necessity of large amount of calcium absorption in growing-up and normal life. Calcium absorption commonly comes from foods (meat, sea-food and milk).

### Adolescence

Calcium tablets vary greatly in term of costs and effective. Taking calcium tablets, many adolescence increase their calcium absorption and reduce sports-injures and other symptoms. In many clinical cases, low cost inorganic calcium tablets is enough for children and youngsters.

Drug composition	Suitability for human	Costs
Inorganic calcium	Children or adolescence	Cheap
Organic calcium	Adolescence or elderly	Cost
Calcium + Vitamin D <sub>2</sub>	Adolescence or elderly	Moderate

Table 1: Property of different calcium tablets.

### Osteoporosis in elderly

The bones of old people are easily injured by osteoporosis (bone fracture). This kind of disease progresses with age growths. It is popular and associated with human mortality rate for elderly. The treatment and alleviation of calcium loss in elderly are key medical topic for orthopedics. Most important preventive and therapeutic measure is to take calcium tablets.

## **Pharmacology**

Bone diseases have different pathogenesis [6-11]. The effects of calcium tablets lie on absorption of calcium in human bodies. Generally speaking, different rate of calcium absorption is affected with various individuals and physiological conditions. In old patients, the calcium absorption is especially difficult. Combination of calcium tablets with vitamin  $D_3$  or fish calcitonin are better choice with some elderly having serious symptoms.

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