Osteogenesis Imperfecta (OI) is a group of rare disorders affecting the connective tissue and characterized by extremely fragile bones that break or fracture easily (brittle bones), often without apparent cause. The specific symptoms and physical findings associated with OI vary greatly from case to case. The severity of OI also varies greatly, even among individuals of the same family. OI may be a mild disorder or may result in severe complications. Four main types of OI have been identified. OI type I is the most common and the mildest form of the disorder. OI type II is the most severe. In most cases, the various forms of osteogenesis imperfecta are inherited as autosomal dominant traits. Osteogenesis imperfecta affects males and females in equal numbers. The exact number of individuals with OI in the United States (prevalence) is unknown. OI type I is estimated to occur in one in 30,000 live births. OI type II is estimated to occur in one in 60,000 live births. The overall prevalence of all types of OI is estimated at .5 per 10,000 individuals in the United States. Approximately 20,000 to 50,000 individuals in the United States have OI.