In ichthyosis vulgaris, the skin cells are produced at a normal rate, but they do not shed normally at the surface of the outermost layer of skin (stratum corneum) and are not shed as quickly as they should be. The result is a build-up of scale. Fine scales usually develop on the back and over muscles near the joints, such as an elbow or knee (extensor muscles). Ichthyosis is usually most common and severe over the lower legs. Ichthyosis vulgaris is an inherited disorder transmitted through an autosomal dominant inheritance. The specific genetic defect that causes ichthyosis vulgaris is not yet identified. Human traits, including classic genetic diseases, are the product of the interaction of two genes for that condition, one received from the father and one from the mother. In dominant disorders, a single copy of the disease gene (received from either the mother or the father) will be expressed, dominating the other normal gene and resulting in the appearance of the disease. In the case of ichthyosis vulgaris, the gene for the disease overrides the gene for normal skin and the individual shows the disease. The risk of transmitting the disorder from an affected parent to offspring is 50 percent for each pregnancy, regardless of the sex of the child. Ichthyosis vulgaris is a fairly common disorder that affects approximately one in 250 persons in the United States. Males and females are affected in equal numbers. Ichthyosis vulgaris is treated topically with moisturizers containing urea or glycerol. Lotions containing alpha-hydroxy acids may help. However, some individuals with ichthyosis vulgaris also may experience atopic dermatitis (red, itchy patches of skin) and the alpha-hydroxy acids may irritate their skin.