Thyroid cancer (carcinoma) is cancer affecting the thyroid gland, a butterfly-shaped structure located at the base of the neck. The thyroid is part of the endocrine system, the network of glands that secrete hormones that regulate the chemical processes (metabolism) that influence the body's activities as well as regulating the heart rate, body temperature, and blood pressure. Hormones are secreted directly into the bloodstream where they travel to various areas of the body. According to the American Cancer Society, approximately 64,300 new cases of thyroid cancer will be diagnosed in the United States in 2016. Of those cases, more than 49,350 will occur in women. In fact, thyroid cancer is now the 5th most common cancer in women. Thyroid cancer can affect individuals of any age and specific forms occur with greater frequency among different age groups. In general, thyroid nodules in children and adolescents are more likely may be malignant than those that occur in adults. In general, for unclear reasons, the rate of thyroid cancer incidence has been increasing rapidly over the past few decades. Some researchers believe that this increase in frequency is due to the greater use of imaging (CT scans, MRI), with the result being an increase in the rate of detection of small thyroid cancers that may not ever have been detected while the individual was alive. Multiple endocrine neoplasia (MEN) type 2 is a rare genetic cancer syndrome in which tumors develop in the endocrine glands (e.g., thyroid, parathyroid, adrenal glands). Two main subtypes exist called MEN 2A and MEN 2B. Familial medullary thyroid carcinoma (FMTC) is considered a third subtype. Nearly all individuals with MEN 2 develop medullary thyroid carcinoma (MTC) at some point. (For more information on these disorders, choose “multiple endocrine neoplasia” as your search term in the Rare Disease Database.)