Nelson syndrome is a disorder characterized by abnormal hormone secretion, enlargement of the pituitary gland (hypophysis), and the development of large and invasive growths known as adenomas. It occurs in an estimated 15 to 25 percent of people who undergo surgical removal of the adrenal glands for Cushing disease. Symptoms associated with Nelson syndrome include intense skin discoloration (hyperpigmentation), headaches, vision impairment, and the cessation of menstrual periods in women. Symptoms of Nelson syndrome include intense skin pigmentation, headaches, visual field disturbances and the cessation of menstrual periods in females. Blood levels of the pituitary hormones adrenocorticotrope hormone (ACTH) and beta-melanocyte stimulating hormone (beta-MSH) are abnormally high. The pituitary gland gets abnormally large in Nelson syndrome, causing headaches and visceral symptoms. Nelson syndrome can be caused by surgical removal of the adrenal glands on both sides of the body (bilateral adrenalectomy). Removal of the adrenal glands is a treatment for Cushing disease. Cushing disease is the name given to a condition in which Cushing syndrome, an endocrine disorder, occurs because of the presence of benign (non-cancerous) tumors on the pituitary gland. Following removal of these adrenal glands, some people will develop Nelson syndrome. Growth of a pre-existing or a concealed (occult) tumor of the pituitary gland may also cause this disorder. Nelson syndrome affects approximately 15 to 25% of people who have undergone surgical removal of their adrenal glands. It affects males and females in equal numbers. Cases caused by tumors are very rare. When Nelson syndrome is suspected, blood samples are analyzed for the presence or absence of cortisol and/or aldosterone. Imaging studies such as CAT scans or magnetic resonance imaging may also be used.