

Out of Hours

La Tour's hypovitaminosis in the peasants' swollen eyelids and deformed nails

Georges de La Tour (1593–1652), a French Baroque caravaggist painter and native of the Vic-sur-Seille region near Metz, France (technically part of the Holy Roman Empire, but ruled by France since 1552), and then belonging to the Duchy of Lorraine, is famous for his paintings of blind people.

The causes for eye disorders in his works are diverse, from presbyopia, myopia, cataracts, and strabismus, to eye complications resulting from Parkinson's disease.^{1,2} This chiaroscuro master suddenly changed his early painting style from bright, common-life scenes to dark, candle-lit religious compositions. He may have developed eye problems himself,¹ although no portraits of him have reached us. De La Tour's painting *The Pea-Eaters* or *Peasant Couple Eating*, or *The Porridge-Eaters* (1620), depicts a couple with a challenging eye ailment different from those just described. Both of the malnourished peasants have swollen, half-closed eyelids suggesting bilateral conjunctival inflammation underneath.

The man's right lower eyelid is particularly edematous, and has a purplish hue that might represent palpebral and conjunctival hemorrhages. Neither character look at their vegetable bowls or at each other but have a strange blank stare; they might be almost blind. In addition, both peasants have nail dystrophy (greyish nails on the thumb and second finger of the man's left hand with what is known as 'Beau's lines' — horizontal ridges — on the left thumb, and on the third left fingernail of the woman's hand).

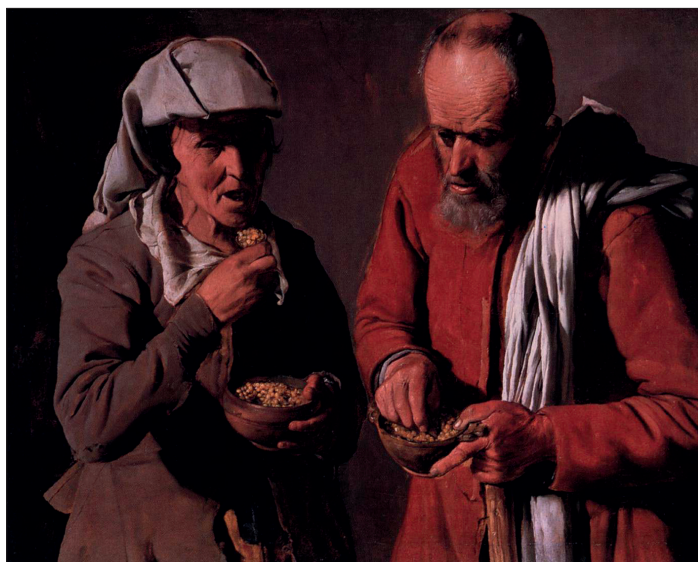
Vitamin A deficiency is a well-known cause of xerophthalmia, or corneal dryness, complicated by corneal ulcers, corneal scarring, and, finally, blindness. In addition it can cause skin disorders (xerosis and follicular hyperkeratosis). Nail dystrophy, manifesting as brittle nails with vertical ridges and Beau's lines, is common among people with nutritional disorders including protein

deficiency and pellagra. Trachyonychia — or rough nail plates with grey opacity, brittle and split ends, and with a rough sandpaper-like surface — is familiar in older people with a decreased food intake.^{3,4}

The French region where these farmers lived suffered the consequences of continuous war between France and the Habsburg Empire throughout the 17th century. This led to Cardinal Richelieu's troops invading the Duchy in 1641 during the Thirty Years' War. Poor harvests, and livestock and poultry shortages, led to a well-reported and severe famine among the farmers at the time. Dried vegetables stored in cellars and other secluded parts of the farms were the only food available to them in those turbulent years.

Vitamin A deficiency is due to deficient ingestion of fresh vegetables (carrots, broccoli, spinach, sweet potatoes), fruits (apricot, papaya), liver (beef, pork, chicken, cod), eggs, or dairy sources (cheese, milk, butter).⁵ Eye, skin, and nail disorders are the unfortunate consequences of vitamin A deficiency.^{4,5}

In their swollen, half-closed eyelids and sad expression, as well as in their deformed nails, the poor old peasants shown here by de La Tour hungrily eating dried or boiled peas may well be showing the



Georges de La Tour, *The Pea-Eaters or Peasant Couple Eating* (circa 1620). Gemäldegalerie, Berlin, Germany. [Public domain, via Wikimedia Commons.]

consequences of malnutrition: vitamin A deficiency and other hypovitaminosis due to the war shortages of fresh vegetables, livestock, and dairy products.

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