VITAMIN A STUDY 3

“Inadequate retinol…Impaired dark adaptation”

When light passes through the lens, it is sensed by the retina and converted to a nerve impulse for interpretation by the brain. Retinol (vitamin A) is transported to the retina via the circulation and accumulates in retinal pigment epithelial cells. Here, retinol is converted into other forms, and shuttled to rod cells of the eye and used to help form the visual pigment, rhodopsin (also known as visual purple). Rod cells with rhodopsin can detect very small amounts of light, making them important for night vision. In fact, inadequate retinol available to the retina results in impaired dark adaptation, known as “night blindness.”[3]

[3] Ross AC. Vitamin A and retinoids. In: Shils M, Olson JA, Shike M, Ross AC. ed. Modern Nutrition in Health and Disease. 9th ed. Baltimore: Lippincott Williams & Wilkins; 1999:305-327.