

# About Primary and Central Adrenal Insufficiency

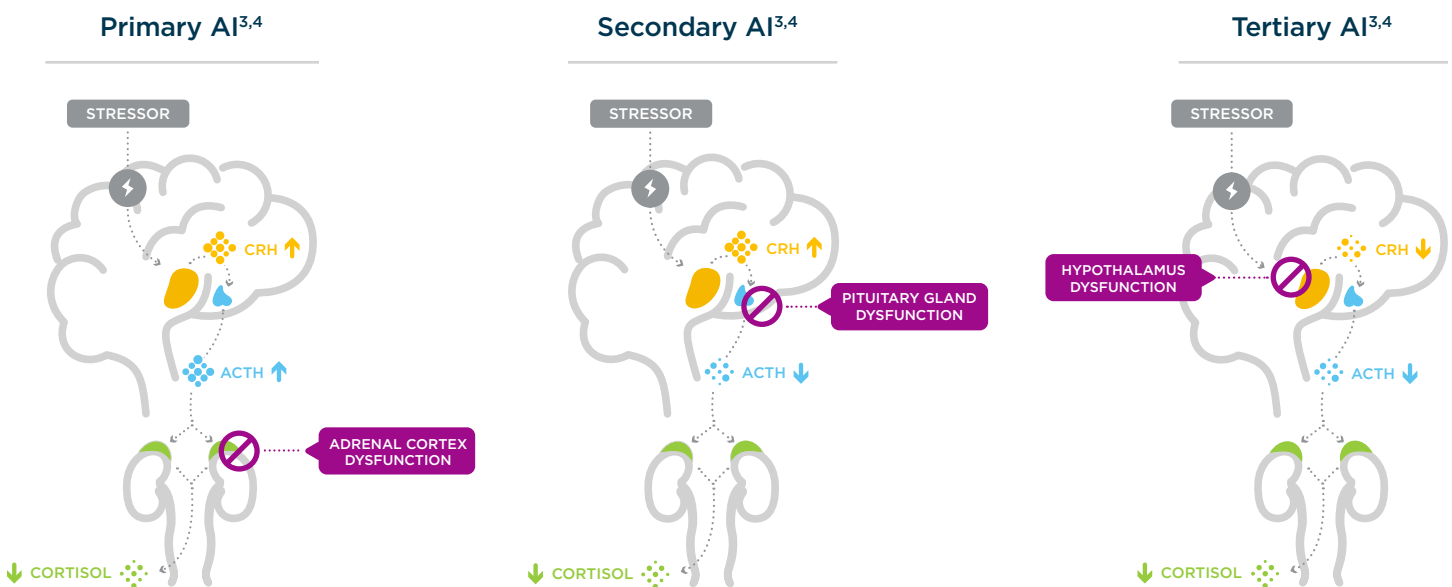
## Primary adrenal insufficiency is caused by the destruction or dysfunction of the adrenal gland<sup>1</sup>

Patients with primary adrenal insufficiency (AI) exhibit insufficient production of cortisol by the adrenal glands, almost always with concomitant lack of aldosterone. Some common etiologies of primary AI include autoimmune disease, infection, surgery, and congenital disease.<sup>1-3</sup>

Primary AI is rare disease with a low prevalence of ~93-140 per million.<sup>1</sup>

The most common types of primary AI include<sup>2</sup>:

- Congenital adrenal hyperplasia (CAH)
- Addison's disease



## Central adrenal insufficiency encompasses both secondary and tertiary cortisol deficiency<sup>1</sup>

Central AI is characterized by impaired adrenocorticotropic hormone (ACTH) or corticotropin-releasing hormone (CRH) secretion as a result of disease or injury to the pituitary gland or hypothalamus, respectively. This results in a lack of adrenal cortisol production. The causes of central AI include<sup>1-3,5</sup>:

- Pituitary tumors, cranial irradiation/surgery/injury/infections, and hypopituitarism (secondary)
- Exogenous glucocorticoid withdrawal and hypothalamic disorders (tertiary)

Central AI has an estimated prevalence of ~150-280 per million, affecting more women than men. Exogenous corticosteroid therapy withdrawal (iatrogenic AI) is the most common cause of central AI in children.<sup>2,3,6</sup>

**References:** **1.** Bowden SA, Henry R. *Int J Pediatr.* 2018;2018:1739831. doi:10.1155/2018/1739831. **2.** Auron M, Raissouni N. *Pediatr Rev.* 2015;36(3):92-102. doi:10.1542/pir.36-3-92. **3.** Arlt W, Allolio B. *Lancet.* 2003;361(9372):1881-1893. doi:10.1016/S0140-6736(03)13492-7. **4.** Oprea A, et al. *Ther Adv Endocrinol Metab.* 2019;10:2042018818821294. doi:10.1177/2042018818821294. **5.** Ceccato F, Scaroni C. *Clin Chem Lab Med.* 2019;57(8):1125-1135. doi:10.1515/cclm-2018-0824. **6.** Paragliola RM, Corsello SM. *Minerva Endocrinol.* 2018;43(2):183-197. doi:10.23736/S0391-1977.17.02701-8.