

Endocrine Disorders & Psychiatric Symptoms/ Cognitive Disorders

Causes of Endocrine Disorders

Endocrine disorders are typically grouped into two categories:

- Endocrine disease that results when a gland produces too much or too little of an endocrine hormone, called a hormone imbalance.
- Endocrine disease due to the development of lesions (such as nodules or tumors) in the endocrine system, which may or may not affect hormone levels.

--- Webmd.com

Orchid Mental Health Legal Advocacy of Colorado, Inc.

www.orchidadvocacy.org

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| <p>Definitions from the National Institute of Health (NIH)</p> <p>(There is a lot of overlap among these various disorders because these glands are so interconnected)</p> | <p>Association with Psychiatric Symptoms/Cognitive Disorders</p> | <p>More General Information</p> |
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| <p><u>Adrenal Gland Disorders</u></p> | | |

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| <ul style="list-style-type: none"> • Adrenal Gland Tumors <p>Most adrenal gland tumors—abnormal growths on the adrenal glands—are not cancerous. They often do not cause symptoms or require treatment.</p> <p>Cause Type: Lesions</p> | <p>Mood changes are common in secreting tumors of adrenals. In one study major depressive syndrome was seen in 50%–70% of the cases.</p> <p>Other associated features include anxiety in 12%–79% of the cases,⁹ and hypomania in 3%.</p> | <p><u>Mayo Clinic</u></p> |
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| <p>However, adrenal gland tumors can produce a variety of different hormones, leading hormone levels to get too high.</p> | <p>Less common are features of psychosis and mania.</p> <p>Jun 13, 2016 MedCrave</p> | |
| <ul style="list-style-type: none"> • Adrenocortical Carcinoma | | |

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| <ul style="list-style-type: none"> • Cushing Syndrome <p>“Chronic exposure of the body's tissues to excess levels of cortisol - a hormone naturally produced by the adrenal gland.”</p> <p>Cause Type: Too Much Cortisol</p> | <p>Cushing's disease often causes psychiatric symptoms.</p> <p>The most common are cognitive impairment, irritability, anxiety, and depression.</p> <p>Psychotic disorders and delusions are less common, but also occur.</p> <p>Sep 19, 2019 Cushing Disease News</p> | <p>Mayo Clinic</p> |
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| <ul style="list-style-type: none">• Congenital Adrenal Hyperplasia (CAH) | <p>Any psychiatric diagnoses were more common in CAH females compared with female and male population controls.</p> <p>In particular, the risk of alcohol misuse was increased compared with female and male population controls, and appeared most common among the girls and</p> | |
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| | <p>women with the most severe null genotype.</p> <p>The risk of stress and adjustment disorders was doubled compared with female population controls.</p> <p>Girls and women with CAH have an increased risk of psychiatric disorders in general and substance use disorders in particular compared with unexposed females, with the highest risk among those with the most severe genotype.</p> <p>Prenatal androgen exposure and deficient endogenous cortisol and/or adrenaline production may provide explanations for</p> | |
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| | <p>these findings, but other factors related to CAH cannot be excluded.</p> <p>June 2015 Psychoneuroendocrinology</p> | |
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| <ul style="list-style-type: none"> • Pituitary Tumors | | |
| <ul style="list-style-type: none"> • Pheochromocytoma | <p>Pheochromocytoma, a catecholaminesecreting tumor, can present with a number of symptoms.</p> <p>Primarily it mimics panic anxiety symptoms, including “paroxysmal</p> | <p>Mayo Clinic</p> |

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| | <p>attacks of anxiety,” according to Maldonado. “</p> <p>These patients have many of the classic symptoms of anxiety disorder.</p> <p>2009 Psychiatric Times</p> | |
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| <ul style="list-style-type: none">• Adrenal Gland Suppression | <p>Adrenal insufficiency has been shown to display a wealth of possible psychiatric presentations including psychosis, depression, anxiety, mania, and cognitive impairment, alongside the known vague physical symptoms.</p> <p>Oct 29, 2015 <u>Primary Care Companion for CNS Disorders</u></p> | <p>Mayo Clinic</p> |
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| <p>• Addison’s Disease</p> <p>“Addison's disease is a chronic disease that occurs when the adrenal glands do not produce enough (or any) of the hormones cortisol and aldosterone. ... Common symptoms of Addison's disease include fatigue, loss of appetite, and abdominal pain and nausea.”</p> <p>Cause Type: Adrenal Glands do not produce enough (or any) of the hormones cortisol & aldosterone</p> | <p>Neuropsychiatric symptoms of AD (Addison’s Disease) include, but are not limited to, depression, lack of energy, and sleep disturbances.</p> <p>During an Addisonian crisis, agitation, delirium, and, in some cases, visual and auditory hallucinations are reported.</p> <p>Oct. 2012</p> | <p><u>Mayo Clinic</u></p> |
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| | <p>Innovations in Clinical Neuroscience</p> | |
| <p>• Hyperaldosteronism</p> <p>Cause Type: Excess Aldosterone</p> | <p>Primary aldosteronism is a natural model for chronic aldosterone excess in humans and associated with symptoms of anxiety and depression.</p> <p>Cognitive deficits are inherent to the symptomatology of depression and anxiety disorders. Mineralocorticoid receptors and aldosterone appear to play a role in memory.</p> <p>March 2012 Hormone & Metabolic Research</p> | |

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| Hypothalamus | | |
| Ovaries | | |

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| Pancreas | | |
| <ul style="list-style-type: none"> • <u>Pancreatitis</u>, or inflammation of the pancreas: This happens when digestive enzymes | <p>Frequency and risk factors for mental disorders following pancreatitis: a nationwide cohort study</p> <p>“Conclusions: Patients following CP (Chronic Pancreatitis), recurrent AP</p> | |

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| <p>start digesting the pancreas itself</p> | <p>(Acute Pancreatitis), severe AP, and those with diabetes are at high risk for developing mental disorders.”</p> <p>2019</p> | |
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| | <u>Current Medical Research & Opinion</u> | |
| • <u>Pancreatic cancer</u> | | |
| • <u>Cystic fibrosis</u> , a genetic disorder in which thick, sticky mucus can also block tubes in your pancreas | | |
| Parathyroid Glands | | |

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| Pineal Gland | | |
| Pituitary Gland | | |
| . Pituitary Gland Acromegaly | | |
| . Adult Growth Hormone Deficiency. | | |

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| · Craniopharyngioma. | | |
| · Cushing's Disease. | | |
| · Diabetes Insipidus | | |
| · Hypopituitarism. | | |
| · Non-functioning tumors | | |

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| Testes | | |
| Thymus | | |
| Thyroid | | |
| · Goiter - enlargement of the thyroid gland | | |

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| <ul style="list-style-type: none"> • <u>Hyperthyroidism</u> - when your thyroid gland makes more thyroid hormones than your body needs | | |
| <ul style="list-style-type: none"> • <u>Hypothyroidism</u> - when your thyroid gland does not make enough thyroid hormones | | |
| <ul style="list-style-type: none"> • <u>Thyroid cancer</u> | | |

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| <ul style="list-style-type: none">• Thyroid nodules - lumps in the thyroid gland | | |
| <ul style="list-style-type: none">• Thyroiditis - swelling of the thyroid | | |