Cortisol Deficiency: Frequent, Life-Impairing, and How to Give Patients Their Lives Back by Correcting It, Part 2 *by Thierry Hertoghe, MD*

References (References 1-153 in Part 1)

154. Leproult R, et al. Transition from dim to bright light in the morning induces an immediate elevation of cortisol levels. *J Clin Endocrinol Metab*. 2001 Jan;86(1):151-7.
155. Eberhagen D, Plette G, Hauck O. On the modification of lipid metabolism in the adrenal glands of the rat. 3. Studies after formaldehyde poisoning. *Z Gesamte Exp Med*. 1968;145(2):171-84.
156. Anderson KE, et al. Diet-hormone interactions: protein/carbohydrate ratio alters reciprocally the plasma levels of testosterone and cortisol and their respective binding globulins in man. *Life Sci*. 1987 May 4;40(18):1761-8.
157. Slag MF, et al. Meal stimulation of cortisol secretion: a protein induced effect. *Metabolism*. 1981 Nov;30(11):1104-8.
158. Civen M, et al. Effects of excess dietary cholesterol on adrenal cholesterol accumulation and steroidogenesis. *J Steroid Biochem.* 1984 Apr;20(4A):893-9. (Diets with 3% cholesterol … elevated adrenal corticosteroid levels (43%)).
159. Treviño Villarreal DC, et al. Relationship of serum cortisol and metabolic syndrome components, dietary intakes and anxiety disorder in children at 8 to 12 years of age with obesity. *Nutr Hosp*. 2012 Sep-Oct;27(5):1562-8.
160. Tannenbaum BM, et al. High-fat feeding alters both basal and stress-induced hypothalamic-pituitary-adrenal activity in the rat. *Am J Physiol*. 1997 Dec;273(6 Pt 1):E1168-77.
161. Takeuchi H, et al. Accelerative effect of olive oil on adrenal corticosterone secretion in rats loaded with single or repetitive immersion-restraint stress. *J Nutr Sci Vitaminol* (Tokyo). 2000 Aug;46(4):158-64.
162. Fernández-Real JM, Ricart W, Casamitjana R. Lower cortisol levels after oral glucose in subjects with insulin resistance and abdominal obesity. *Clin Endocrinol* (Oxf). 1997 Nov;47(5):583-8.
163. Kodama M, et al. Vitamin C infusion treatment enhances cortisol production of the adrenal via the pituitary ACTH route. *In Vivo*. 1994 Nov-Dec;8(6):1079-85.
164. Kodama M, et al. Intraperitoneal administration of ascorbic acid delays the turnover of 3H-labelled cortisol in the plasma of an ODS rat, but not in the Wistar rat. Evidence in support of the cardinal role of vitamin C in the progression of glucocorticoid synthesis. *In Vivo.* 1996 Jan-Feb;10(1):97-102.
165. Martignoni E, et al. Acetyl-L-carnitine acutely administered raises beta-endorphin and cortisol plasma levels in humans. *Clin Neuropharmacol*. 1988 Oct;11(5):472-7.
166. Methlie P, et al. Grapefruit juice and licorice increase cortisol availability in patients with Addison's disease. *Eur J Endocrinol*. 2011 Nov;165(5):761-9. doi: 10.1530/EJE-11-0518.
167. Pratesi C, et al. Effects of licorice on urinary urinary metabolites of cortisol and cortisone. *J Hypertens Suppl*. 1991 Dec;9(6):S274-5
168. MacLean CR, et al. Effects of the Transcendental Meditation program on adaptive mechanisms: changes in hormone levels and responses to stress after 4 months of practice. *Psychoneuroendocrinology*. 1997 May;22(4):277-95
169. Seifritz E, et al. Differential mood response to natural and synthetic corticosteroids after bilateral adrenalectomy: a case report. *J Psychiatr Res*. 1994 Jan-Feb;28(1):7-11. (A 48-year-old woman who had had a bilateral adrenalectomy for Cushing's syndrome developed severe psychotic symptoms that were unresponsive to psychotropic drugs as long as she was taking prednisone (PRED) as replacement therapy. However, after she was switched to a regimen of cortisol (CORT) and fludrocortone (FLUD) the psychopathology disappeared. Mechanisms related to the differences in the interaction of natural (e.g. CORT) and synthetic (e.g. PRED) corticosteroids with the central glucocorticoid and mineralocorticoid receptors may explain the different effects upon psychopathology.)
170. Piguet B. Study of attacks of tetany and psychological disorders appearing during adrenal cortex hormone therapy: attacks of tetany and grave psychoses initiated by substitution of delta-cortisone for hydrocortisone and subsequently by ACTH. *Rev Rhum Mal Osteoartic*. 1958 Dec;25(12):814-28.
171. Benson S, et al. Effects of standard glucocorticoid replacement therapies on subjective well-being: a randomized, double-blind, crossover study in patients with secondary adrenal insufficiency. *Eur J Endocrinol*. 2012 Nov;167(5):679-85. (SAI patients showed improvements in physical quality of life (i.e. SF-36 physical function, $P<0.05$; physical role function, $P<0.05$) and current well-being (at 1800 h, $P<0.05$) under treatment A (hydrocortisone 10-0-5-0 mg) compared with the other replacement regimens)
172. van der Heide-Jalving M, et al. Short- and long-term effects of neonatal glucocorticoid therapy: is hydrocortisone an alternative to dexamethasone? *Acta Paediatr*. 2003 Jul;92(7):827-35 (DEX girls had a poorer performance on nearly all behavioral scales of the Teacher's Report Form compared with HC girls. DEX boys did not differ from HC boys. The HC boys or girls did not differ from the REF or BMETH groups. Neuromotor development was poorer in DEX than the BMETH and REF groups.)
173. Hoffmann K, et al. Comparison of skin atrophy and vasoconstriction due to mometasone furoate, methylprednisolone and hydrocortisone. *J Eur Acad Dermatol Venereol*. 1998 Mar;10(2):137-42.
174. Jacobs S, et al. Adrenal suppression following extradural steroids. *Anaesthesia*. 1983 Oct;38(10):953-6.
175. Lipworth BJ. Systemic adverse effects of inhaled corticosteroid therapy: A systematic review and meta-analysis. *Arch Intern Med*. 1999 May 10;159(9):941-55 ("Marked adrenal suppression occurs with high doses of inhaled corticosteroid above 1.5 mg/d (0.75 mg/d for fluticasone propionate), although there is a considerable degree of interindividual susceptibility")
176. Endocrinology Volume 2:, 4th edition, Ed. Degroot LL, Jameson JL, chapter 119: Adrenal Glands and glucocorticoids: p. 1672, table 119-1
177. Harter JC. Corticosteroids. *NY State J Med*. 1966;66:827-40
178. Longui CA, et al. Antiproliferative and apoptotic potencies of glucocorticoids: nonconcordance with their antiinflammatory and immunosuppressive properties. *Arq Bras Endocrinol Metabol*. 2005 Jun;49(3):378-83
179. Løvås K, Husebye ES. Replacement therapy for Addison's disease: recent developments. *Expert Opin Investig Drugs*. 2008 Apr;17(4):497-509.
180. Roelfsema F, Aoun P, Veldhuis JD. Pulsatile Cortisol Feedback on ACTH Secretion Is Mediated by the Glucocorticoid Receptor and Modulated by Gender. *J Clin Endocrinol Metab*. 2016 Nov;101(11):4094-4102.

181. Kellner M, et al. No acute suppression of cerebrospinal fluid corticotropin-releasing hormone in man by cortisol administration. *Psychiatry Res.* 2013 Dec 15;210(2):662-4
182. Posener JA, et al. Cortisol feedback effects on plasma corticotropin levels in healthy subjects. *Psychoneuroendocrinology*. 1997 Apr;22(3):169-76.
183. Hamitouche N, et al. Population pharmacokinetic-pharmacodynamic model of oral fludrocortisone and intravenous hydrocortisone in healthy volunteers. *AAPS J.* 2017 May;19(3):727-735.
184. Wilkinson CW, Peskind ER, Raskind MA. Decreased hypothalamic-pituitary-adrenal axis sensitivity to cortisol feedback inhibition in human aging. *Neuroendocrinology*. 1997 Jan;65(1):79-90
185. Nass R, et al. Four-hour infusion of hydrocortisone does not suppress the nocturnal increase of circulating acyl- or desacyl-ghrelin concentrations in healthy young adults. *J Clin Endocrinol Metab.* 2014 Sep;99(9):E1696-700
186. Tops M, et al. Cortisol-induced increases of plasma oxytocin levels predict decreased immediate free recall of unpleasant words. *Front Psychiatry*. 2012 May 16;3:43.
187. Tops M, van Peer JM, Korf J. Individual differences in emotional expressivity predict oxytocin responses to cortisol administration: relevance to breast cancer? *Biol Psychol*. 2007 May;75(2):119-23
188. Porter RJ, et al. The effects of sub-chronic administration of hydrocortisone on hormonal and psychological responses to L-tryptophan in normal male volunteers. *Psychopharmacology* (Berl). 2002 Aug;163(1):68-75
189. Kasckow JW, et al. Circulating human corticotropin-releasing factor-binding protein levels following cortisol infusions. *Life Sci*. 2001 Jun 1;69(2):133-42.
190. Askari H, Liu J, Dagogo-Jack S. Hormonal regulation of human leptin in vivo: effects of hydrocortisone and insulin. *Int J Obes Relat Metab Disord*. 2000 Oct;24(10):1254-9.
191. Watson S, Porter RJ, Young AH. Effect of hydrocortisone on the pituitary response to growth hormone releasing hormone. *Psychopharmacology* (Berl). 2000 Sep;152(1):40-6.
192. Porter RJ, et al. 5-Hydroxytryptamine receptor function in humans is reduced by acute administration of hydrocortisone. Psychopharmacology (Berl). 1998 Oct;139(3):243-50.
193. Newcomer JW, et al. Dose-dependent cortisol-induced increases in plasma leptin concentration in healthy humans. *Arch Gen Psychiatry*. 1998 Nov;55(11):995-1000.
194. Young AH, Rue J, Odontiadis J, Cowen PJ. Lack of effect of hydrocortisone treatment on d-fenfluramine-mediated prolactin release. *Psychopharmacology* (Berl). 1998 Mar;136(2):198-200.
195. Dinan TG, Scott LV. The influence of cortisol on spontaneous and 5HT stimulated prolactin release in man. *J Basic Clin Physiol Pharmacol*. 1996;7(1):45-56
196. Friess E, et al. Effects of pulsatile cortisol infusion on sleep-EEG and nocturnal growth hormone release in healthy men. J Sleep Res. 1994 Jun;3(2):73-79
197. Lal S, et al. Effect of hydrocortisone on basal and apomorphine-induced growth hormone secretion in normal subjects. *Clin Invest Med.* 1988 Jun;11(3):218-23.
198. Clerc D, Wick H, Keller U. Acute cortisol excess results in unimpaired insulin action on lipolysis and branched chain amino acids, but not on glucose kinetics and C-peptide concentrations in man. *Metabolism.* 1986 May;35(5):404-10
199. Merz CJ, et al. Neural Underpinnings of Cortisol Effects on Fear Extinction. *Neuropsychopharmacology*. 2017 Sep 26. [Epub ahead of print]
200. Graebener AH, et al. Repeated cortisol administration does not reduce intrusive memories - A double blind placebo-controlled experimental study. *Eur Neuropsychopharmacol*. 2017 Sep 18. pii: S0924-977X(17)30903-3
201. Dinse HR, et al. The stress hormone cortisol blocks perceptual learning in humans. *Psychoneuroendocrinology*. 2017 Mar;77:63-67
202. Fleischer J, et al. The effect of cortisol on autobiographical memory retrieval depends on remoteness and valence of memories. *Biol Psychol*. 2017 Feb;123:136-140
203. Duesenberg M, et al. Effects of Hydrocortisone on false memory recognition in healthy men and women. *Behav Neurosci*. 2016 Dec;130(6):635-642.
204. Rombold F, et al. Impact of exogenous cortisol on the formation of intrusive memories in healthy women. *J Psychiatr Res.* 2016 Dec;83:71-78.
205. Kinner VL, et al. Cortisol disrupts the neural correlates of extinction recall. *Neuroimage*. 2016 Jun;133:233-43.
206. Margittai Z, Nave G, Strombach T, van Wingerden M, Schwabe L, Kalenscher T. Exogenous cortisol causes a shift from deliberative to intuitive thinking. *Psychoneuroendocrinology*. 2016 Feb;64:131-5.
207. Miller R, et al. Hydrocortisone accelerates the decay of iconic memory traces: on the modulation of executive and stimulus-driven constituents of sensory information maintenance. *Psychoneuroendocrinology*. 2015 Mar;53:148-58
208. Wiemers US, Wolf OT. Cortisol broadens memory of a non-stressful social interaction. *Psychopharmacology* (Berl). 2015 May;232(10):1727-33
209. Peifer C, et al. Cortisol effects on flow-experience. *Psychopharmacology* (Berl). 2015 Mar;232(6):1165-73.
210. Cioncoloni D, et al. Differential effects of acute cortisol administration on deep and shallow episodic memory traces: a study on healthy males. *Neurobiol Learn Mem*. 2014 Oct;114:186-92
211. Kandasamy N, et al. Cortisol shifts financial risk preferences. *Proc Natl Acad Sci USA.* 2014 Mar 4;111(9):3608-13.
212. Koessler S, et al. Stress eliminates retrieval-induced forgetting--does the oral application of cortisol? *Psychoneuroendocrinology*. 2013 Jan;38(1):94-106
213. Tops M, et al. Cortisol-induced increases of plasma oxytocin levels predict decreased immediate free recall of unpleasant words. *Front Psychiatry*. 2012 May 16;3:43.
214. Young K, et al. Dose-dependent effects of hydrocortisone infusion on autobiographical memory recall. *Behav Neurosci*. 2011 Oct;125(5):735-41
215. Wilhelm I, Wagner U, Born J. Opposite effects of cortisol on consolidation of temporal sequence memory during waking and sleep. *J Cogn Neurosci*. 2011 Dec;23(12):3703-12.
216. Putman P, Berling S. Cortisol acutely reduces selective attention for erotic words in healthy young men. *Psychoneuroendocrinology*. 2011 Oct;36(9):1407-17.

217. Wingenfeld K, et al. Working memory performance and cognitive flexibility after dexamethasone or hydrocortisone administration in healthy volunteers. *Psychopharmacology* (Berl). 2011 Oct;217(3):323-9
218. Römer S, et al. Oral cortisol impairs implicit sequence learning. *Psychopharmacology* (Berl). 2011 May;215(1):33-40
219. Kuehl LK, et al. Accelerated trace eyeblink conditioning after cortisol IV-infusion. *Neurobiol Learn Mem.* 2010 Nov;94(4):547-53
220. Richter S, et al. Cortisol rapidly disrupts prepulse inhibition in healthy men. *Psychoneuroendocrinology*. 2011 Jan;36(1):109-14
221. Tops M, et al. Acute cortisol effects on immediate free recall and recognition of nouns depend on stimulus valence. *Psychophysiology*. 2003 Mar;40(2):167-73
222. Hsu FC, et al. Effects of a single dose of cortisol on the neural correlates of episodic memory and error processing in healthy volunteers. *Psychopharmacology* (Berl). 2003 Jun;167(4):431-42
223. McAllister-Williams RH, Rugg MD. Effects of repeated cortisol administration on brain potential correlates of episodic memory retrieval. *Psychopharmacology* (Berl). 2002 Feb;160(1):74-83
224. Buchanan TW, et al. Exogenous cortisol exerts effects on the startle reflex independent of emotional modulation. *Pharmacol Biochem Behav.* 2001 Feb;68(2):203-10
225. Kirschbaum C, et al. Stress- and treatment-induced elevations of cortisol levels associated with impaired declarative memory in healthy adults. *Life Sci*. 1996;58(17):1475-83.
226. Young AH, et al. The effects of chronic administration of hydrocortisone on cognitive function in normal male volunteers. *Psychopharmacology* (Berl). 1999 Aug;145(3):260-6
227. Newcomer JW, et al. Decreased memory performance in healthy humans induced by stress-level cortisol treatment. *Arch Gen Psychiatry*. 1999 Jun;56(6):527-33µ
228. Schwegler K, et al. Cortisol reduces recall of explicit contextual pain memory in healthy young men. *Psychoneuroendocrinology*. 2010 Sep;35(8):1270-3.
229. Oei NY, et al. Hydrocortisone reduces emotional distracter interference in working memory. *Psychoneuroendocrinology*. 2009 Oct;34(9):1284-93.
230. Schwabe L, et al. Modulation of spatial and stimulus-response learning strategies by exogenous cortisol in healthy young women. *Psychoneuroendocrinology*. 2009 Apr;34(3):358-66
231. Rohleder N, et al. Effects of cortisol on emotional but not on neutral memory are correlated with peripheral glucocorticoid sensitivity of inflammatory cytokine production. *Int J Psychophysiol*. 2009 Apr;72(1):74-80.
232. Tollenaar MS, et al. Immediate and prolonged effects of cortisol, but not propranolol, on memory retrieval in healthy young men. *Neurobiol Learn Mem.* 2009 Jan;91(1):23-31
233. Sale MV, Ridding MC, Nordstrom MA. Cortisol inhibits neuroplasticity induction in human motor cortex. *J Neurosci*. 2008 Aug 13;28(33):8285-93.
234. Alhaj HA, Massey AE, McAllister-Williams RH. Effects of cortisol on the laterality of the neural correlates of episodic memory. *J Psychiatr Res*. 2008 Oct;42(12):971-81.
235. van Peer JM, Roelofs K, Spinhoven P. Cortisol administration enhances the coupling of midfrontal delta and beta oscillations. *Int J Psychophysiol*. 2008 Feb;67(2):144-50
236. Kuhlmann S, Wolf OT. A non-arousing test situation abolishes the impairing effects of cortisol on delayed memory retrieval in healthy women. *Neurosci Lett*. 2006 May 22;399(3):268-72
237. Kuhlmann S, Wolf OT. Arousal and cortisol interact in modulating memory consolidation in healthy young men. *Behav Neurosci*. 2006 Feb;120(1):217-23.
238. Abercrombie HC, Kalin NH, Davidson RJ. Acute cortisol elevations cause heightened arousal ratings of objectively nonarousing stimuli. *Emotion*. 2005 Sep;5(3):354-9.
239. Kuhlmann S, Wolf OT. Cortisol and memory retrieval in women: influence of menstrual cycle and oral contraceptives. *Psychopharmacology* (Berl). 2005 Nov;183(1):65-71.
240. Domes G, et al. Inverted-U function between salivary cortisol and retrieval of verbal memory after hydrocortisone treatment. *Behav Neurosci*. 2005 Apr;119(2):512-7
241. Buss C, Wolf OT, Witt J, Hellhammer DH. Autobiographic memory impairment following acute cortisol administration. *Psychoneuroendocrinology*. 2004 Sep;29(8):1093-6
242. Tops M, et al. Free recall of pleasant words from recency positions is especially sensitive to acute administration of cortisol. *Psychoneuroendocrinology*. 2004 Apr;29(3):327-38.
243. Porter RJ, et al. Effects of hydrocortisone administration on cognitive function in the elderly. *J Psychopharmacol*. 2002 Mar;16(1):65-71
244. Wolf OT, et al. Cortisol differentially affects memory in young and elderly men. *Behav Neurosci.* 2001 Oct;115(5):1002-11
245. Meir Drexler S, et al. Cortisol effects on fear memory reconsolidation in women. *Psychopharmacology* (Berl). 2016 Jul;233(14):2687-97.
246. Dierolf AM, et al. Effects of basal and acute cortisol on cognitive flexibility in an emotional task switching paradigm in men. *Horm Behav*. 2016 May;81:12-9.
247. Drexler SM, et al. Effects of cortisol on reconsolidation of reactivated fear memories. *Neuropsychopharmacology*. 2015 Dec;40(13):3036-43.
248. Cornelisse S, et al. Delayed effects of cortisol enhance fear memory of trace conditioning. *Psychoneuroendocrinology*. 2014 Feb;40:257-68
249. van Ast VA, et al. Time-dependent effects of cortisol on the contextualization of emotional memories. *Biol Psychiatry*. 2013 Dec 1;74(11):809-16.
250. Merz CJ, et al. Cortisol modifies extinction learning of recently acquired fear in men. *Soc Cogn Affect Neurosci.* 2014 Sep;9(9):1426-34
251. Henckens MJ, et al. Time-dependent effects of cortisol on selective attention and emotional interference: a functional MRI study. *Front Integr Neurosci*. 2012 Aug 28;6:66
252. Tollenaar MS, et al. Psychophysiological responding to emotional memories in healthy young men after cortisol and propranolol administration. *Psychopharmacology* (Berl). 2009 May;203(4):793-803
253. Putman P, Hermans EJ, van Honk J. Exogenous cortisol shifts a motivated bias from fear to anger in spatial working memory for facial expressions. *Psychoneuroendocrinology.* 2007 Jan;32(1):14-21.

254. Stark R, et al. Influence of the stress hormone cortisol on fear conditioning in humans: evidence for sex differences in the response of the prefrontal cortex. *Neuroimage*. 2006 Sep;32(3):1290-8.
255. Rimmele U, et al. Cortisol has different effects on human memory for emotional and neutral stimuli. *Neuroreport*. 2003 Dec 19;14(18):2485-8.
256. Abercrombie HC, et al. Cortisol variation in humans affects memory for emotionally laden and neutral information. *Behav Neurosci*. 2003 Jun;117(3):505-16
257. Buchanan TW, Lovallo WR. Enhanced memory for emotional material following stress-level cortisol treatment in humans. *Psychoneuroendocrinology*. 2001 Apr;26(3):307-17
258. Robertson CV, Immink MA, Marino FE. Exogenous cortisol administration: Effects on Risk Taking Behavior, Exercise Performance, and Physiological and Neurophysiological Responses. *Front Physiol*. 2016 Dec 27;7:640.
259. Ma ST, et al. Neural circuitry of emotion regulation: Effects of appraisal, attention, and cortisol administration. *Cogn Affect Behav Neurosci*. Paril 2017;17(2):437-451.
260. Kluen LM, Agorastos A, Wiedemann K, Schwabe L. Cortisol boosts risky decision-making behavior in men but not in women. *Psychoneuroendocrinology*. 2017 Oct;84:181-189.
261. Duesenberg M, et al. Does cortisol modulate emotion recognition and empathy? *Psychoneuroendocrinology*. 2016 Apr;66:221-7.
262. Gowin JL, et al. The role of cortisol and psychopathy in the cycle of violence. *Psychopharmacology* (Berl). 2013 Jun;227(4):661-72
263. Breitberg A, et al. Hydrocortisone infusion exerts dose- and sex-dependent effects on attention to emotional stimuli. *Brain Cogn*. 2013 Mar;81(2):247-55
264. van Ast VA, Vervliet B, Kindt M. Contextual control over expression of fear is affected by cortisol. *Front Behav Neurosci*. 2012 Oct 11;6:67
265. Merz CJ, et al. Oral contraceptive usage alters the effects of cortisol on implicit fear learning. *Horm Behav*. 2012 Sep;62(4):531-8
266. Henckens MJ, et al. Time-dependent effects of cortisol on selective attention and emotional interference: a functional MRI study. *Front Integr Neurosci*. 2012 Aug 28;6:66
267. Grillon C, et al. Acute hydrocortisone treatment increases anxiety but not fear in healthy volunteers: a fear-potentiated startle study. *Biol Psychiatry*. 2011 Mar 15;69(6):549-55
268. Wirth MM, Scherer SM, Hoks RM, Abercrombie HC. The effect of cortisol on emotional responses depends on order of cortisol and placebo administration in a within-subject design. *Psychoneuroendocrinology*. 2011 Aug;36(7):945-54
269. Tabbert K, et al. Cortisol enhances neural differentiation during fear acquisition and extinction in contingency aware young women. *Neurobiol Learn Mem*. 2010 Oct;94(3):392-401.
270. Böhnke R, et al. Exogenous cortisol enhances aggressive behavior in females, but not in males. *Psychoneuroendocrinology*. 2010 Aug;35(7):1034-44.
271. Tops M, et al. State-dependent regulation of cortical activity by cortisol: an EEG study. *Neurosci Lett*. 2006 Aug 14;404(1-2):39-43
272. Merz C, et al. Investigating the impact of sex and cortisol on implicit fear conditioning with fMRI. *Psychoneuroendocrinology*. 2010 Jan;35(1):33-46
273. Kinner VL, Wolf OT, Merz CJ. Cortisol alters reward processing in the human brain. *Horm Behav*. 2016 Aug;84:75-83.
274. Montoya ER, et al. Cortisol administration induces global down-regulation of the brain's reward circuitry. *Psychoneuroendocrinology*. 2014 Sep;47:31-42.
275. Singer N, et al. Acute psychosocial stress and everyday moral decision-making in young healthy men: The impact of cortisol. *Horm Behav*. 2017 Jul;93:72-81
276. Brown ES, et al. Hippocampal volume in healthy controls given 3-day stress doses of hydrocortisone. *Neuropsychopharmacology*. 2015 Mar 13;40(5):1216-21
277. Holz E, et al. Effects of acute cortisol administration on perceptual priming of trauma-related material. *PLoS One*. 2014 Sep 5;9(9):e104864
278. Bos PA, et al. Cortisol administration increases hippocampal activation to infant crying in males depending on childhood neglect. *Hum Brain Mapp*. 2014 Oct;35(10):5116-26
279. Schulz A, et al. Cortisol rapidly affects amplitudes of heartbeat-evoked brain potentials--implications for the contribution of stress to an altered perception of physical sensations? *Psychoneuroendocrinology*. 2013 Nov;38(11):2686-93
280. Demiralay C, et al. Differential effects to CCK-4-induced panic by dexamethasone and hydrocortisone. *World J Biol Psychiatry*. 2012 Oct;13(7):526-34.
281. Bertsch K, et al. Exogenous cortisol facilitates responses to social threat under high provocation. *Horm Behav*. 2011 Apr;59(4):428-34.
282. Scheel M, Ströhle A, Bruhn H. Effects of short-term stress-like cortisol on cerebral metabolism: a proton magnetic resonance spectroscopy study at 3.0 T. *J Psychiatr Res*. 2010 Jun;44(8):521-6
283. Putman P, Hermans EJ, van Honk J. Cortisol administration acutely reduces threat-selective spatial attention in healthy young men. *Physiol Behav*. 2010 Mar 3;99(3):294-300
284. Vasa RA, et al. Effects of yohimbine and hydrocortisone on panic symptoms, autonomic responses, and attention to threat in healthy adults. *Psychopharmacology* (Berl). 2009 Jun;204(3):445-55
285. Het S, Wolf OT. Mood changes in response to psychosocial stress in healthy young women: effects of pretreatment with cortisol. *Behav Neurosci*. 2007 Feb;121(1):11-20.
286. Reuter M. Impact of cortisol on emotions under stress and nonstress conditions: a pharmacopsychological approach. *Neuropsychobiology*.2002;46(1):41-
287. Wingenfeld K, et al. No effects of hydrocortisone and dexamethasone on pain sensitivity in healthy individuals. *Eur J Pain*. 2015 Jul;19(6):834-41
288. Michaux GP, et al. Experimental characterization of the effects of acute stresslike doses of hydrocortisone in human neurogenic hyperalgesia models. *Pain*. 2012 Feb;153(2):420-8
289. Mager DE, et al. Dose equivalency evaluation of major corticosteroids: pharmacokinetics and cell trafficking and cortisol dynamics. *J Clin Pharmacol*. 2003 Nov;43(11):1216-27
290. Weckesser LJ, et al. Hydrocortisone Counteracts adverse stress effects on dual-task performance by improving visual sensory processes. *J Cogn Neurosci*. 2016 Nov;28(11):1784-1803

291. Ferreira de Sá DS, et al. Cortisol, but not intranasal insulin, affects the central processing of visual food cues. *Psychoneuroendocrinology*. 2014 Dec;50:311-20.
292. Schilling TM, et al. Rapid cortisol enhancement of psychomotor and startle reactions to side-congruent stimuli in a focused cross-modal choice reaction time paradigm. *Eur Neuropsychopharmacol*. 2014 Nov;24(11):1828-35
293. Ashton CH, et al. Subchronic hydrocortisone treatment alters auditory evoked potentials in normal subjects. *Psychopharmacology* (Berl). 2000 Sep;152(1):87-92
294. Beckwith BE, et al. Hydrocortisone reduces auditory sensitivity at high tonal frequencies in adult males. *Pharmacol Biochem Behav*. 1983 Sep;19(3):431-3
295. Born J, et al. Influences of cortisol on auditory evoked potentials (AEPs) and mood in humans. *Neuropsychobiology*. 1989;20(3):145-51.
296. Fehm-Wolfsdorf G, et al. Taste thresholds in man are differentially influenced by hydrocortisone and dexamethasone. *Psychoneuroendocrinology*. 1989;14(6):433-40.
297. Schilling TM, et al. Intranasal insulin increases regional cerebral blood flow in the insular cortex in men independently of cortisol manipulation. *Hum Brain Mapp*. 2014 May;35(5):1944-56
298. Symonds CS, et al. Detection of the acute effects of hydrocortisone in the hippocampus using pharmacological fMRI. *Eur Neuropsychopharmacol*. 2012 Dec;22(12):867-74
299. Strelzyk F, et al. Tune it down to live it up? Rapid, nongenomic effects of cortisol on the human brain. *J Neurosci*. 2012 Jan 11;32(2):616-25
300. Lovallo WR, et al. Acute effects of hydrocortisone on the human brain: an fMRI study. *Psychoneuroendocrinology*. 2010 Jan;35(1):15-20.
301. McAllister-Williams RH, Massey AE, Fairchild G. Repeated cortisol administration attenuates the EEG response to buspirone in healthy volunteers: evidence for desensitization of the 5-HT1A autoreceptor. *J Psychopharmacol*. 2007 Nov;21(8):826-32.
302. Tessner KD, et al. The relation of cortisol levels with hippocampus volumes under baseline and challenge conditions. *Brain Res*. 2007 Nov 7;1179:70-8
303. Tops M, et al. Acute cortisol administration reduces subjective fatigue in healthy women. *Psychophysiology*. 2006 Nov;43(6):653-6.
304. Whitcomb JE, et al. Randomized trial of oral hydrocortisone and its effect on emergency physicians during night duty. *WMJ*. 2000 Oct;99(7):37-41, 46.
305. Plat L, et al. Metabolic effects of short-term elevations of plasma cortisol are more pronounced in the evening than in the morning. *J Clin Endocrinol Metab*. 1999 Sep;84(9):3082-92
306. Born J, et al. Influences of corticotropin-releasing hormone, adrenocorticotropin, and cortisol on sleep in normal man. *J Clin Endocrinol Metab*. 1989 May;68(5):904-11
307. Born J, et al. Differential effects of hydrocortisone, fluocortolone, and aldosterone on nocturnal sleep in humans. *Acta Endocrinol* (Copenh). 1987 Sep;116(1):129-37
308. Besedovsky L, et al. Cortisol increases CXCR4 expression but does not affect CD62L and CCR7 levels on specific T cell subsets in humans. *Am J Physiol Endocrinol Metab*. 2014 Jun 1;306(11):E1322-9
309. Ekman B, et al. Altered chemokine Th1/Th2 balance in Addison's disease: relationship with hydrocortisone dosing and quality of life. *Horm Metab Res*. 2014 Jan;46(1):48-53
310. Yeager MP, et al. Pretreatment with stress cortisol enhances the human systemic inflammatory response to bacterial endotoxin. *Crit Care Med*. 2009 Oct;37(10):2727-32.
311. Imrich R, et al. Pharmacological hyperprolactinemia attenuates hydrocortisone-induced expression of CD11b on human CD8+ cells in vivo. *Neuroimmunomodulation*. 2004;11(3):133-40.
312. Hennig J, Netter P, Voigt KH. Cortisol mediates redistribution of CD8+ but not of CD56+ cells after the psychological stress of public speaking. *Psychoneuroendocrinology*. 2001 Oct;26(7):673-87.
313. Goulding NJ, et al. Anti-inflammatory lipocortin 1 production by peripheral blood leucocytes in response to hydrocortisone. *Lancet*. 1990 Jun 16;335(8703):1416-8
314. Tønnesen E, Christensen NJ, Brinkløv MM. Natural killer cell activity during cortisol and adrenaline infusion in healthy volunteers. *Eur J Clin Invest*. 1987 Dec;17(6):497-503
315. Djurhuus CB, et al. Additive effects of cortisol and growth hormone on regional and systemic lipolysis in humans. *Am J Physiol Endocrinol Metab*. 2004 Mar;286(3):E488-94
316. Djurhuus CB, et al. Effects of cortisol on lipolysis and regional interstitial glycerol levels in humans. *Am J Physiol Endocrinol Metab*. 2002 Jul;283(1):E172-7
317. Vila G, et al. Acute effects of hydrocortisone on the metabolic response to a glucose load: increase in the first-phase insulin secretion. *Eur J Endocrinol*. 2010 Aug;163(2):225-31
318. Plat L, et al. Effects of morning cortisol elevation on insulin secretion and glucose regulation in humans. *Am J Physiol*. 1996 Jan;270(1 Pt 1:E36-42.
319. Rassias AJ, Guyre PM, Yeager MP. Hydrocortisone at stress-associated concentrations helps maintain human heart rate variability during subsequent endotoxin challenge. *J Crit Care*. 2011 Dec;26(6):636.e1-5
320. Laviolle B, et al. Low doses of fludrocortisone and hydrocortisone, alone or in combination, on vascular responsiveness to phenylephrine in healthy volunteers. *Br J Clin Pharmacol*. 2013 Feb;75(2):423-30
321. Heindl S, et al. Differential effects of hydrocortisone on sympathetic and hemodynamic responses to sympathoexcitatory manoeuvres in men. *Steroids*. 2006 Mar;71(3):206-13
322. Nonell A, et al. Chronic but not acute hydrocortisone treatment shifts the response to an orthostatic challenge towards parasympathetic activity. *Neuroendocrinology*. 2005;81(1):63-8.
323. Williamson PM, et al. Acute effects of hydrocortisone on plasma nitrate/nitrite activity and forearm vasodilator responsiveness in normal human subjects. *Clin Exp Pharmacol Physiol*. 2005 Mar;32(3):162-6.
324. Mangos GJ, et al. Cortisol inhibits cholinergic vasodilation in the human forearm. *Am J Hypertens*. 2000 Nov;13(11):1155-60.
325. Dodt C, et al. Acute suppression of muscle sympathetic nerve activity by hydrocortisone in humans. *Hypertension*. 2000 Mar;35(3):758-63
326. Kelly JJ, Martin A, Whitworth JA. Role of erythropoietin in cortisol-induced hypertension. *J Hum Hypertens*. 2000 Mar;14(3):195-8

327. Macefield VG, et al. Muscle sympathetic vasoconstrictor activity in hydrocortisone-induced hypertension in humans. *Blood Press*. 1998 Jul;7(4):215-22
328. Pirpiris M, et al. Hydrocortisone-induced hypertension in men. The role of cardiac output. *Am J Hypertens*. 1993 Apr;6(4):287-94
329. Yurtsever T, et al. The acute and temporary modulation of PERIOD genes by hydrocortisone in healthy subjects. *Chronobiol Int.* 2016;33(9):1222-34
330. Johansen O, Brox J, Flaten MA. Placebo and Nocebo responses, cortisol, and circulating beta-endorphin. Psychosom Med. 2003 Sep-Oct;65(5):786-90
331. Novak E, et al. Anorectal pruritus after intravenous hydrocortisone sodium succinate and sodiumphosphate. *Clin Pharmacol Ther*. 1976 Jul;20(1):109-12
332. Hearn AJ, et al. Effect of sub-chronic hydrocortisone on responses to amphetamine in normal male volunteers. *Psychopharmacology* (Berl). 2004 Feb;171(4):458-64
333. Elfström J, Lindgren S. Metabolism of phenazone in man after hydrocortisone administration. *Eur J Clin Pharmacol*. 1978 Mar 17;13(1):69-72
334. Wachtel SR, Charnot A, de Wit H. Acute hydrocortisone administration does not affect subjective responses to d-amphetamine in humans. *Psychopharmacology* (Berl). 2001 Jan;153(3):380-8
335. Gagliardi L, et al. Continuous subcutaneous hydrocortisone infusion therapy in Addison's disease: a randomized, placebo-controlled clinical trial. *J Clin Endocrinol Metab*. 2014 Nov;99(11):4149-57.
336. Ekman B, et al. A randomized, double-blind, crossover study comparing two- and four-dose hydrocortisone regimen with regard to quality of life, cortisol and ACTH profiles in patients with primary adrenal insufficiency. *Clin Endocrinol* (Oxf). 2012 Jul;77(1):18-25.
337. Riedel M, et al. Quality of life in patients with Addison's disease: effects of different cortisol replacement modes. *Exp Clin Endocrinol*. 1993;101(2):106-11
338. Simunkova K, et al. Effect of a pre-exercise hydrocortisone dose on short-term physical performance in female patients with primary adrenal failure. *Eur J Endocrinol.* 2016 Jan;174(1):97-105.
339. Weise M, et al. Stress dose of hydrocortisone is not beneficial in patients with classic congenital adrenal hyperplasia undergoing short-term, high-intensity exercise. *J Clin Endocrinol Metab*. 2004 Aug;89(8):3679-84.
340. Laviolle B, et al. Biological and hemodynamic effects of low doses of fludrocortisone and hydrocortisone, alone or in combination, in healthy volunteers with hypoaldosteronism. *Clin Pharmacol Ther*. 2010 Aug;88(2):183-90
341. Andersen M, et al. The effect of short-term cortisol changes on growth hormone responses to the pyridostigmine-growth-hormone-releasing-hormone test in healthy adults and patients with suspected growth hormone deficiency. *Clin Endocrinol* (Oxf). 1998 Aug;49(2):241-9.
342. Segerlantz M, et al. Effects of morning cortisol replacement on glucose and lipid metabolism in GH-treated subjects. *Eur J Endocrinol*. 2004 Dec;151(6):701-7
343. Giustina A, et al. Effect of pyridostigmine on the hydrocortisone-mediated decrease of circulating growth hormone levels in acromegaly. *Horm Metab Res*. 1994 Jun;26(6):288-92.
344. Cleare AJ, O'Keane V, Miell JP. Levels of DHEA and DHEAS and responses to CRH stimulation and hydrocortisone treatment in chronic fatigue syndrome. *Psychoneuroendocrinology*. 2004 Jul;29(6):724-32
345. Cleare AJ, et al. Hypothalamo-pituitary-adrenal axis dysfunction in chronic fatigue syndrome, and the effects of low-dose hydrocortisone therapy. *J Clin Endocrinol Metab*. 2001 Aug;86(8):3545-54.
346. Cleare AJ, O'Keane V, Miell J. Plasma leptin in chronic fatigue syndrome and a placebo-controlled study of the effects of low-dose hydrocortisone on leptin secretion. *Clin Endocrinol* (Oxf). 2001 Jul;55(1):113-9.
347. Cleare AJ, et al. Low-dose hydrocortisone in chronic fatigue syndrome: a randomised crossover trial. *Lancet*. 1999 Feb 6;353(9151):455-8
348. McKenzie R, et al. Low-dose hydrocortisone for treatment of chronic fatigue syndrome: a randomized controlled trial. *JAMA*. 1998 Sep 23-30;280(12):1061-6.
349. Blockmans D, et al. Combination therapy with hydrocortisone and fludrocortisone does not improve symptoms in chronic fatigue syndrome: a randomized, placebo-controlled, double-blind, crossover study. *Am J Med*. 2003 Jun 15;114(9):736-41
350. Putman P, et al. A single administration of cortisol acutely reduces preconscious attention for fear in anxious young men. *Psychoneuroendocrinology*. 2007 Aug;32(7):793-802
351. van Peer JM, Spinhoven P, Roelofs K. Psychophysiological evidence for cortisol-induced reduction in early bias for implicit social threat in social phobia. *Psychoneuroendocrinology*. 2010 Jan;35(1):21-32
352. van Peer JM, et al. Cortisol-induced enhancement of emotional face processing in social phobia depends on symptom severity and motivational context. *Biol Psychol*. 2009 May;81(2):123-30.
353. DeBattista C, et al. Acute antidepressant effects of intravenous hydrocortisone and CRH in depressed patients: a double-blind, placebo-controlled study. *Am J Psychiatry*. 2000 Aug;157(8):1334-7.
354. O'Dwyer AM, et al. Treatment of major depression with metyrapone and hydrocortisone. *J Affect Disord*. 1995 Feb 21;33(2):123-8
355. Schmid DA, et al. Acute cortisol administration increases sleep depth and growth hormone release in patients with major depression. *J Psychiatr Res*. 2008 Oct;42(12):991-9.
356. Bhagwagar Z, et al. Lack of effect of a single dose of hydrocortisone on serotonin(1A) receptors in recovered depressed patients measured by positron emission tomography with [11C]WAY-100635. *Biol Psychiatry*. 2003 Nov 1;54(9):890-5
357. Kuehl LK, et al. Effects of cortisol on the memory bias for emotional words? A study in patients with depression and healthy participants using the Directed Forgetting task. *J Psychiatr Res.* 2017 Sep;92:191-198
358. Terfehr K, et al. Effects of acute hydrocortisone administration on declarative memory in patients with major depressive disorder: a placebo-controlled, double-blind crossover study. *J Clin Psychiatry*. 2011 Dec;72(12):1644-50
359. Terfehr K, et al. Hydrocortisone impairs working memory in healthy humans, but not in patients with major depressive disorder. *Psychopharmacology* (Berl). 2011 May;215(1):71-79
360. Schlosser N, et al. Effects of acute cortisol administration on autobiographical memory in patients with major depression and healthy controls. *Psychoneuroendocrinology*. 2010 Feb;35(2):316-20
361. Posener JA, et al. Cortisol feedbackduring the HPA quiescent period in patients with major depression. *Am J Psychiatry*. 2001 Dec;158(12):2083-5

362. Bhagwagar Z, Hafizi S, Cowen PJ. Cortisol modulation of 5-HT-mediated growth hormone release in recovered depressed patients. *J Affect Disord*. 2002 Dec;72(3):249-55
363. Schlosser N, et al. Effects of acute cortisol administration on response inhibition in patients with major depression and healthy controls. *Psychiatry Res*. 2013 Oct 30;209(3):439-46
364. Zohar J, et al. High dose hydrocortisone immediately after trauma may alter the trajectory of PTSD: interplay between clinical and animal studies. *Eur Neuropsychopharmacol*. 2011 Nov;21(11):796-809.
365. Schelling G, et al. The effect of stress doses of hydrocortisone during septic shock on posttraumatic stress disorder in survivors. *Biol Psychiatry*. 2001 Dec15;50(12):978-85
366. Yehuda R, et al. Cortisol augmentation of a psychological treatment for warfighters with posttraumatic stress disorder: Randomized trial showing improved treatment retention and outcome. *Psychoneuroendocrinology*. 2015 Jan;51:589-97
367. Wingenfeld K, et al. Cortisol effects on autobiographic memory retrieval in PTSD: an analysis of word valence and time until retrieval. *Stress*. 2013 Sep;16(5):581-6.
368. Delahanty DL, et al. The efficacy of initial hydrocortisone administration at preventing posttraumatic distress in adult trauma patients: a randomized trial. *CNS Spectr*. 2013 Apr;18(2):103-11
369. van Marle HJ, et al. The effect of exogenous cortisol during sleep on the behavioral and neural correlates of emotional memory consolidation in humans. *Psychoneuroendocrinology*. 2013 Sep;38(9):1639-49.
370. Wingenfeld K, et al. Cortisol has enhancing, rather than impairing effects on memory retrieval in PTSD. *Psychoneuroendocrinology*. 2012 Jul;37(7):1048-56.
371. Miller MW, et al. Hydrocortisone suppression of the fear-potentiated startle response and posttraumatic stress disorder. *Psychoneuroendocrinology*. 2011 Aug;36(7):970-80
372. Yehuda R, et al. Changes in relative glucose metabolic rate following cortisol administration in aging veterans with posttraumatic stress disorder: an FDG-PET neuroimaging study. *J Neuropsychiatry Clin Neurosci*. 2009 Spring;21(2):132-43.
373. Yehuda R, et al. Enhanced effects of cortisol administration on episodic and working memory in aging veterans with PTSD. *Neuropsychopharmacology*. 2007 Dec;32(12):2581-91.
374. Aerni A, et al. Low-dose cortisol for symptoms of posttraumatic stress disorder. *Am J Psychiatry*. 2004 Aug;161(8):1488-90
375. Ludäscher P, et al. No evidence for differential dose effects of hydrocortisone on intrusive memories in female patients with complex post-traumatic stress disorder--a randomized, double-blind, placebo-controlled, crossover study. *J Psychopharmacol*. 2015 Oct;29(10):1077-84
376. Brown ES, et al. A randomized, placebo-controlled proof-of-concept, crossover trial of phenytoin for hydrocortisone-induced declarative memory changes. *J Affect Disord*. 2013 Sep 5;150(2):551-8
377. Grossman R, et al. Cognitive effects of intravenous hydrocortisone in subjects with PTSD and healthy control subjects. *Ann N Y Acad Sci*. 2006 Jul;1071:410-21.
378. Vythilingam M, Lawley M, Collin C, Bonne O, Agarwal R, Hadd K, Charney DS, Grillon C. Hydrocortisone impairs hippocampal-dependent trace eyeblink conditioning in post-traumatic stress disorder. *Neuropsychopharmacology*. 2006 Jan;31(1):182-8
379. Yehuda R, et al. Hydrocortisone responsiveness in Gulf War veterans with PTSD: effects on ACTH, declarative memory hippocampal [(18)F]FDG uptake on PET. *Psychiatry Res*. 2010 Nov 30;184(2):117-27
380. Yehuda R, et al. Alterations in cortisol negative feedback inhibition as examined using the ACTH response to cortisol administration in PTSD. *Psychoneuroendocrinology*. 2006 May;31(4):447-51
381. Nenke MA, et al. Low-dose hydrocortisone replacement improves wellbeing and pain tolerance in chronic pain patients with opioid-induced hypocortisolemic responses. A pilot randomized, placebo-controlled trial. *Psychoneuroendocrinology*. 2015 Jun;56:157-67
382. Yadav M, Durga P, Gopinath R. Role of hydrocortisone in prevention of pain on propofol injection. *J Anaesthesiol Clin Pharmacol*. 2011 Oct;27(4):470-4
383. Hornyak M, et al. Low-dose hydrocortisone in the evening modulates symptom severity in restless legs syndrome. *Neurology*. 2008 Apr 29;70(18):1620-2
384. Roquilly A, et al. Hydrocortisone therapy for patients with multiple trauma: the randomized controlled HYPOLYTE study. *JAMA*. 2011 Mar 23;305(12):1201-9
385. Wingenfeld K, et al. Effects of cortisol on memory in women with borderline personality disorder: role of co-morbid post-traumatic stress disorder and major depression. *Psychol Med*. 2013 Mar;43(3):495-505
386. Asehnoune K, et al. Hydrocortisone and fludrocortisone for prevention of hospital-acquired pneumonia in patients with severe traumatic brain injury (Corti-TC): a double-blind, multicentre phase 3, randomised placebo-controlled trial. *Lancet Respir Med*. 2014 Sep;2(9):706-16
387. de Leon MJ, et al. Cortisol reduces hippocampal glucose metabolism in normal elderly, but not in Alzheimer's disease. *J Clin Endocrinol Metab*. 1997 Oct;82(10):3251-9
388. Tsai MS, et al. The effect of hydrocortisone on the outcome of out-of-hospital cardiac arrest patients: a pilot study. *Am J Emerg Med*. 2007 Mar;25(3):318-25
389. Alam MR, Rahman MA, Ershad R. Role of very short-term intravenous hydrocortisone in reducing postdural puncture headache. *J Anaesthesiol Clin Pharmacol*. 2012 Apr;28(2):190-3
390. Salas G, Travaglianti M, Leone A, Couceiro C, Rodríguez S, Fariña D. Hydrocortisone for the treatment of refractory hypotension: a randomized controlled trial. *An Pediatr* (Barc). 2014 Jun;80(6):387-93.
391. Hochwald O, Palegra G, Osiovich H. Adding hydrocortisone as 1st line of inotropic treatment for hypotension in very low birth weight infants. *Indian J Pediatr*. 2014 Aug;81(8):808-10
392. Bassan MM, Sheikh-Hamad D. Prevention of lidocaine-infusion phlebitis b yheparin and hydrocortisone. *Chest*. 1983 Oct;84(4):439-4
393. Rubin LH, et al. Brief Report: Low-Dose Hydrocortisone Has Acute Enhancing Effects on Verbal Learning in HIV-Infected Men. *J Acquir Immune Defic Syndr*. 2017 Jul 1;75(3):e65-e70
394. Bollaert PE, et al. Reversal of late septic shock with supraphysiologic doses of hydrocortisone. *Crit Care Med*. 1998 Apr;26(4):645-50
395. Annane D, et al. Effect of treatment with low doses of hydrocortisone and fludrocortisone on mortality in patients with septic shock. *JAMA*. 2002 Aug 21;288(7):862-71

396. Laviolle B, et al. Gluco- and mineralocorticoid biological effects of a 7-day treatment with low doses of hydrocortisone and fludrocortisone in septic shock. *Intensive Care Med.* 2012 Aug;38(8):1306-14
397. Moreno R, et al. Time course of organ failure in patients with septic shock treated with hydrocortisone: results of the Corticus study. *Intensive Care Med*. 2011 Nov;37(11):1765-72
398. Aboab J, et al. Hydrocortisone effects on cardiovascular variability in septic shock: a spectral analysis approach. *Crit Care Med.* 2008 May;36(5):1481-6
399. Kaufmann I, et al. Stress doses of hydrocortisone in septic shock: beneficial effects on opsonization-dependent neutrophil functions. *Intensive Care Med*. 2008 Feb;34(2):344-9
400. Oppert M, et al. Low-dose hydrocortisone improves shock reversal and reduces cytokine levels in early hyperdynamic septic shock. *Crit Care Med*. 2005 Nov;33(11):2457-64
401. Keh D, et al. Immunologic and hemodynamic effects of "low-dose" hydrocortisone in septic shock: a double-blind, randomized, placebo-controlled, crossover study. *Am J Respir Crit Care Med.* 2003 Feb 15;167(4):512-20
402. Wang C, et al. Low-dose hydrocortisone therapy attenuates septic shock in adult patients but does not reduce 28-day mortality: a meta-analysis of randomized controlled trials. *Anesth Analg*. 2014 Feb;118(2):346-57
403. Chaudhury P, Marshall JC, Solomkin JS; Members of the Evidence Based Reviews in Surgery Group. CAGS and ACS evidence based reviews in surgery. 35: Efficacy and safety of low-dose hydrocortisone therapy in the treatment of septic shock. *Can J Surg*. 2010 Dec;53(6):415-7
404. Arabi YM, et al. Low-dose hydrocortisone in patients with cirrhosis and septic shock: a randomized controlled trial. *CMAJ*. 2010 Dec 14;182(18):1971-7
405. Sprung CL, et al; CORTICUS Study Group. Hydrocortisone therapy for patients with septic shock. *N Engl J Med*. 2008 Jan 10;358(2):111-24
406. Mussack T, et al. Hemofiltration does not influence early S-100B serum levels in septic shock patients receiving stress doses of hydrocortisone or placebo. *Eur J Med Res*. 2005 Feb 28;10(2):81-7
407. Mussack T, et al. Hemofiltrastion does not influence early S-100B serum levels in septic shock patients receiving stress doses of hydrocortisone or placebo. *Eur J Med Res.* 2005 Jan 28;10(1):11-7.
408. Lv QQ, et al. Early initiation of low-dose hydrocortisone treatment for septic shock in adults: A randomized clinical trial. *Am J Emerg Med.* 2017 Jun 5. [Epub ahead of print]
409. Keh D, et al; SepNet–Critical Care Trials Group. Effect of hydrocortisone on development of shock among patients with severe sepsis: The HYPRESS Randomized Clinical Trial. *JAMA*. 2016 Nov 1;316(17):1775-1785
410. Plassais J, et al. Transcriptome modulation by hydrocortisone in severe burn shock: ancillary analysis of a prospective randomized trial. *Crit Care*. 2017 Jun 16;21(1):158
411. Venet F, et al. Low-dose hydrocortisone reduces norepinephrine duration in severe burn patients: a randomized clinical trial. *Crit Care*. 2015 Jan 26;19:21
412. Mussack T, et al. Effect of stress doses of hydrocortisone on S-100B vs. interleukin-8 and polymorphonuclear elastase levels in human septic shock. *Clin Chem Lab Med*. 2005;43(3):259-68
413. Laaninen M, et al. Perioperative hydrocortisone reduces major complications after pancreaticoduodenectomy: a randomized controlled trial. *Ann Surg*. 2016 Nov;264(5):696-702.
414. Safavi M, et al. The evaluation of effects two different doses of hydrocortisone on the intensity of perioperative shivering in elective surgery under spinal anesthesia: A double-blind randomized controlled trial study. *J Res Med Sci*. 2016 Jun 14;21:40.
415. Laaninen M, et al. Perioperative hydrocortisone reduces major complications after pancreaticoduodenectomy: a randomized controlled trial. *Ann Surg*. 2016 Nov;264(5):696-702.
416. Kilger E, et al. Stress doses of hydrocortisone reduce systemic inflammatory response in patients undergoing cardiac surgery without cardiopulmonary bypass. *Minerva Anestesiol*. 2011Mar;77(3):268-74.
417. Weis F, et al. Stress doses of hydrocortisone in high-risk patients undergoing cardiac surgery: effects on interleukin-6 to interleukin-10 ratio and early outcome. *Crit Care Med*. 2009 May;37(5):1685-90.
418. Weis F, et al. Stress doses of hydrocortisone reduce chronic stress symptoms and improve health-related quality of life in high-risk patients after cardiac surgery: a randomized study. *J Thorac Cardiovasc Surg*. 2006 Feb;131(2):277-82
419. Eydi M, Kolahdouzan K, Golzari SE. Effect of Intravenous Hydrocortisone on Preventing Postoperative Sore Throat Followed by Laryngeal Mask Airway Use in patients Undergoing Urogenital Surgeries. *J Cardiovasc Thorac Res*. 2013;5(1):29-33
420. Katayama Y, et al. A randomized controlled trial of hydrocortisone against hyponatremia in patients with aneurysmal subarachnoid hemorrhage. *Stroke*. 2007 Aug;38(8):2373-5.
421. Hashi K, et al. Intravenous hydrocortisone in large doses in the treatment of delayed ischemic neurological deficits following subarachnoid hemorrhage--results of a multi-center controlled double-blind clinical study. *No To Shinkei*. 1988 Apr;40(4):373-82
422. Farrell RJ, et al. Intravenous hydrocortisone premedication reduces antibodies to infliximab in Crohn's disease: a randomized controlled trial. *Gastroenterology*. 2003 Apr;124(4):917-24
423. Rakela J, et al. A double-blinded, randomized trial of hydrocortisone in acute hepatic failure. The Acute Hepatic Failure Study Group. *Dig Dis Sci*. 1991 Sep;36(9):1223-8
424. Manolakopoulos S, et al. Octreotide versus hydrocortisone versus placebo in the prevention of post-ERCP pancreatitis: a multicenter randomized controlled trial. *Gastrointest Endosc*. 2002 Apr;55(4):470-5
425. Tongyoo S, et al. Hydrocortisone treatment in early sepsis-associated acute respiratory distress syndrome: results of a randomized controlled trial. *Crit Care*. 2016 Oct 15;20(1):329
426. Ho LI, et al. Postextubation laryngeal edema in adults. Risk factor evaluation and prevention by hydrocortisone. *Intensive Care Med.* 1996 Sep;22(9):933-6
427. Ussher M, et al. A randomised placebo-controlled trial of oral hydrocortisone for treating tobacco withdrawal symptoms. *Psychopharmacology* (Berl). 2011 Jul;216(1):43-51
428. Walter M, et al. Effects of cortisol administration on craving in heroin addicts. *Transl Psychiatry*. 2015 Jul 28;5:e610
429. Hopper JW, et al. Effects of acute cortisol and cocaine administration on attention, recall and recognition task performance in individuals with cocaine dependence. *Hum Psychopharmacol*. 2004 Oct;19(7):511-6

430. Domes G, et al. Inverted-U function between salivary cortisol and retrieval of verbal memory after hydrocortisone treatment. *Behav Neurosci*. 2005 Apr;119(2):512-7
431. de Silva HA, et al. Low-dose adrenaline, promethazine, and hydrocortisone in the prevention of acute adverse reactions to antivenom following snakebite: a randomised, double-blind, placebo-controlled trial. *PLoS Med*. 2011 May;8(5):e1000435
432. Gawarammana IB, et al. Parallel infusion of hydrocortisone +/- chlorpheniramine bolus injection to prevent acute adverse reactions to antivenom for snakebites. *Med J Aust*. 2004 Jan 5;180(1):20-3
433. Abroug F, et al. High-dose hydrocortisone hemisuccinate in scorpion envenomation. *Ann Emerg Med*. 1997 Jul;30(1):23-7.
434. Meghrajani CF, et al. A randomized, double-blind trial on the use of 1% hydrocortisone cream for the prevention of acute radiation dermatitis. *Expert Rev Clin Pharmacol*. 2016;9(3):483-91.
435. Al-Ghnaniem R, et al. 1% hydrocortisone ointment is an effective treatment of pruritus ani: a pilot randomized controlled crossover trial. *Int J Colorectal Dis*. 2007 Dec;22(12):1463-7
436. Sears HW, Bailer JW, Yeadon A. Efficacy and safety of hydrocortisone buteprate 0.1% cream in patients with atopic dermatitis. *Clin Ther*. 1997 Jul-Aug;19(4):710-9
437. Roth HL, Brown EP. Hydrocortisone valerate. Double-blind comparison with two other topical steroids. *Cutis*. 1978 May;21(5):695-8.
438. Yasuda T. Clinical experiences with hydrocortisone 17-butyrate. *Dermatologica*. 1976;152 Suppl 1:221-9.
439. Zhai H, et al. Antipruritic and thermal sensation effects of hydrocortisone creams in human skin. *Skin Pharmacol Appl Skin Physiol*. 2000 Nov-Dec;13(6):352-7.
440. Manfre M, et al. Hydrocortisone Cream to Reduce Perineal Pain after Vaginal Birth: A Randomized Controlled Trial. *MCN Am J Matern Child Nurs*. 2015 Sep-Oct;40(5):306-12.
441. Greer IA, Cameron AD. Topical pramoxine and hydrocortisone foam versus placebo in relief of post partum episiotomy symptoms and wound healing. *Scott Med J*. 1984 Apr;29(2):104-6
442. Rother M, Rother I. Placebo controlled, crossover validation study of oral ibuprofen and topical hydrocortisone- 21-acetate for a model of ultraviolet B radiation (UVR)-induced pain and inflammation. *J Pain Res*. 2011;4:357-63
443. González Ochoa A, Vargas Ocampo F. Treatment of pityriasis alba with a combination of coal tar, diiodohydroxyquinolin and hydrocortisone. *Med Cutan Ibero Lat Am*. 1980;8(1-3):69-72
444. Maibach HI. Iodochlorhydroxyquin-hydrocortisone treatment of fungal infections. Double-blind trial. *Arch Dermatol*. 1978 Dec;114(12):1773-5.
445. Hull CM, Brunton S. The role of topical 5% acyclovir and 1% hydrocortisone cream (Xerese™) in the treatment of recurrent herpes simplex labialis. *Postgrad Med*. 2010 Sep;122(5):1-6.
446. Evans TG, et al. Double-blind, randomized, placebo-controlled study of topical 5% acyclovir-1% hydrocortisone cream (ME-609) for treatment of UV radiation-induced herpes labialis. *Antimicrob Agents Chemother*. 2002 Jun;46(6):1870-4
447. Serup J, Holm P. Domoprednate (Stermonid), a topical D-homocorticosteroid, skin atrophy and telangiectasia. A double-blind, randomized comparison with hydrocortisone butyrate, betamethasone valerate, clobetasole propionate and placebo. *Dermatologica*. 1985;170(4):189-94
448. Vierhapper H, Nowotny P, Waldhäusl W. Sex-specific differences in cortisol production rates in humans. *Metabolism*. 1998 Aug;47(8):974-6.
449. https://en.wikipedia.org/wiki/Body_surface_area
450. Kraan GP, et al. The daily cortisol production reinvestigated in healthy men. The serum and urinary cortisol production rates are not significantly different. *J Clin Endocrinol Metab*. 1998 Apr;83(4):1247-52.
451. Esteban NV, et al. Daily cortisol production rate in man determined by stable isotope dilution/mass spectrometry. *J Clin Endocrinol Metab*. 1991 Jan;72(1):39-45.
452. Villanueva AL, et al. Increased cortisol production in women runners. *J Clin Endocrinol Metab*. 1986 Jul;63(1):133-6.
453. Sandle GI, Keir MJ, Record CO. Inter-relationships between the absorptions of hydrocortisone, sodium, water and actively transported organic solutes in the human jejunum. *Eur J Clin Pharmacol*. 1982;23(2):177-82.
454. Mah PM, et al. Weight-related dosing, timing and monitoring hydrocortisone replacement therapy in patients with adrenal insufficiency. *Clin Endocrinol* (Oxf). 2004 Sep;61(3):367-75
455. Czock D, et al. Pharmacokinetics and pharmacodynamics of systemically administered glucocorticoids. *Clin Pharmacokinet*. 2005;44(1):61-98 ("the clinical efficacy of low-dose glucocorticoid regimens might be increased with twice-daily glucocorticoid administration")
456. Murray RD, et al; the EU-AIR Investigators. Management of glucocorticoid replacement in adrenal insufficiency shows notable heterogeneity - data from the EU-AIR. *Clin Endocrinol* (Oxf). 2017 Mar;86(3):340-346.
457. Maguire AM, et al. Prolonged hypocortisolemia in hydrocortisone replacement regimens in adrenocorticotrophic hormone deficiency. *Pediatrics*. 2007 Jul;120(1):e164-71.
458. Bliesener N, et al. Dose distribution in hydrocortisone replacement therapy has a significant influence on urine free cortisol excretion. *Exp Clin Endocrinol Diabetes*. 2003 Oct;111(7):443-6
459. Frey BM, Frey FJ. Clinical pharmacokinetics of prednisone and prednisolone. *Clin Pharmacokinet*. 1990 Aug;19(2):126-46 ("an alternate-day regimen with prednisone yields fewer biological effects")
460. Czock D, et al. Pharmacokinetics and pharmacodynamics of systemically administered glucocorticoids. *Clin Pharmacokinet*. 2005;44(1):61-98
461. Jefferies WM. Cortisol and immunity. *Med Hypotheses*. 1991 Mar;34(3):198-208.