

# Download Nervous System Volume 1 Handbook Of Physiology

The nervous system is the master controlling and communicating system of the body. Every thought, action, and emotion reflects its activity. Its signaling device, or means of communicating with body cells, is electrical impulses, which are rapid and specific and cause almost immediate responses.1.. IntroductionAutonomic responding in emotion has been an active research topic since, almost a century ago, Walter Cannon (1915) first studied the physiology of emotion (Brown and Fee, 2002, Dale, 1947).Still, there is no scientific consensus on whether there exists a relation between emotion and the organization of autonomic nervous system (ANS) activity and, if so, in what form.Dopamine (DA, a contraction of 3,4-dihydroxyphenethylamine) is an organic chemical of the catecholamine and phenethylamine families. It functions both as a hormone and a neurotransmitter, and plays several important roles in the brain and body. It is an amine synthesized by removing a carboxyl group from a molecule of its precursor chemical L-DOPA, which is synthesized in the brain and kidneys.Total volume of cerebrospinal fluid (adult) = 125-150 ml Total volume of cerebrospinal fluid (infant) = 50 ml (Aghababian, R., Essentials of Emergency Medicine, 2006) Turnover of entire volume of cerebrospinal fluid = 3 to 4 times per day (from Kandel et al., 2000, p. 1296) Rate of production of CSF = 0.35 ml/min (500 ml/day) (from Kandel et al., 2000, p. 1296) - Nervous System Volume 1 Handbook Of Physiology