عنوان فارسی مقاله:
ناقیص لوله عصبی انسان: بیولوژی رشد و مو، همه گیر شناسی و زنتیک

عنوان انگلیسی مقاله:
Human Neural Tube Defects: Developmental Biology, Epidemiology, and Genetics

توجه!
این فایل تنها قسمتی از ترجمه میباشد. برای تهیه مقاله ترجمه شده کامل با فرمت ورد (قابل ویرایش) همراه با نسخه انگلیسی مقاله، اینجا کلیک نمایید.
Environmental factors associated with neural tube defects

Myriad exogenous causes for NTDs have been postulated and investigated (see [20,32] for review). Factors for which no significant association with NTDs has been found to date include maternal and paternal age effects, maternal periconceptional infections, number of prior “successful” pregnancies, recreational drug use, caffeine intake, smoking, and alcohol use. Hyperthermia (fever and/or hot tub use) has been investigated, though most of these studies are subject to extreme recall bias and have yielded inconsistent results. However, increased risk for NTDs is definitively associated with maternal diabetes and maternal obesity (both associated with glucose metabolism), and maternal use of anti-convulsant medications (for the treatment of epilepsy). For example, anti-epileptic drugs administered to pregnant mothers induce congenital malformations, the incidence rising from 3% without drug to 9% with drug administration [44]. These numbers can rise up to 28% when 3 or more antiepileptic drugs were given to the epileptic mother [36]. The well-known anti-epileptic drug, valproic acid, is teratogenic when given to pregnant women, and its administration results in 1% to 2% incidence of spina bifida [49,58].

Moreover, recent data suggests that this agent also induces mental retardation in children with no physical manifestation.