

<p><b>Autism 101: Causes</b></p>	<p><b>自閉症第一課：成因</b></p>
<p><b>Genetic Causes</b></p> <p>Autism is a complex genetic disorder. It is one of the most heritable of psychiatric illnesses, with identical twins having up to a 90% chance of sharing the diagnosis. About a hundred autism-linked genes have been discovered so far, most of them overlapping with other disorders such as epilepsy and ADHD. But despite mounting evidence for its genetic origins, autism cannot be explained by a single gene—nor a dozen. It is not known precisely how many genes are involved, nor precisely how genetic factors interact with environmental ones to predispose a child to autism. Some have suggested that the autism spectrum is not a single disease with a single genetic cause, but a collection of rare disorders caused by several different genetic variations.</p>	<p><b>遺傳因素</b></p> <p>自閉症是一種複雜的遺傳性疾病。它是在最常見遺傳性精神疾病中的其中一種,在同卵雙胞胎都同樣出現此疾病的機會達九成。目前,發現與自閉症有關連的基因已大約有一百種,大部份都是與其他疾病一起發生的,例如癲癇和過度活躍症。但是,就算有越來越多遺傳起源的證據,自閉症並不能以單一或更多的基因去解釋病因。目前尚未能準確判斷到底有多少基因牽涉在內,也不清楚有多少基因會與環境因素相互產生作用而導致一名兒童有自閉的傾向。有人認為自閉症的領域並非是一個單一基因成因的疾病,反而是數種不同的基因變異所造成一組罕有的疾病。</p>
<p><b>Environmental and Epigenetic Causes</b></p> <p>In the past many scientists were skeptical of non-genetic explanations for autism. It is becoming clear that disorders on the autism spectrum result from an interaction between genes and other factors such as prenatal and environmental conditions. No toxin has been shown to single-handedly cause autism, but environmental conditions may affect children with some genes more than others. The conditions guiding the expression of genes within a cell, known as epigenetics, may also help to explain why autism emerges. Some researchers have suggested that the genes of an autistic child may not be altered at all, but simply expressed differently.</p>	<p><b>環境與表觀遺傳因素</b></p> <p>過去,有許多科學家對自閉症之非遺傳解釋抱懷疑態度。現在,從基因與其他因素,例如產前和環境條件互相產生作用而導致之自閉症系列領域之內的疾病已漸清晰。沒有單一毒素顯示會造成自閉症,不過,環境狀況可能會影響某些兒童的基因多於其他兒童。這等引導細胞內基因展態之狀況稱為表觀遺傳學,也可以協助解釋自閉症形成的原因。有研究人員已經建議,根本不能更改患有自閉症兒童之基因,它們只不過是以不同形態顯示出來而已。</p>
<p><b>Other Causes</b></p> <p>Despite the uncertainty about the causes of autism, two often-cited causes can be ruled out immediately.</p>	<p><b>其他因素</b></p> <p>儘管自閉症成因未能確定,卻可立即排除兩種經常被引用的成</p>

First, mercury in childhood vaccinations do not cause autism. Population studies have found no evidence for a connection between vaccination and autism. Mercury was removed from vaccines more than a decade ago in California and rates of autism have continued to rise there. Second, autism is not the result of bad parenting. When the disorder was first identified in the US in the 1950s, some conjectured that children with autism were guarding themselves against the rejection of a 'refrigerator mother.' This view proved mistaken. Autism has many causes, but absence of sufficient love is not one of them.

因。首先,童年時接種疫苗內之水銀不會造成自閉症。人口調研未能證明疫苗與自閉症有關連。十年以前,加州已經將疫苗裏之水銀排除,但自閉症率卻繼續攀升。其次,自閉症也非不良父母教養之結果。當美國在1950年首先發現此疾病時,有些人推測是自閉症兒童為抗拒「冷若冰霜的母親」以保衛自己。這觀點已被證實是錯誤的。雖然自閉症有許多成因,但缺乏足夠之母愛並不屬其中之一。