Vaccines and Autism:

Links to some studies 2000-2024

Note: these are not all of the studies and likely more can be found.
(as at May 2024)

2024	https://pubmed.ncbi.nlm.nih.gov/38198049/	Our findings reveal that the [Covid] mRNA BNT162b2 vaccine significantly alters WNT gene expression and BDNF levels in both male and female rats, suggesting a profound impact on key neurodevelopmental pathways. Notably, male rats exhibited pronounced autism-like behaviors.
2023	https://wwjournals.com/etiology-of-autism-spectrum-disorders/	Important aspects of human brain development take place during the first two postnatal years, when the immature brain is extremely vulnerable to neurotoxic and immunotoxic insults. This is also a period during which children worldwide are routinely exposed to the majority of aluminum-adjuvanted vaccines… Aluminum is both a neurotoxin and an immunotoxin. There is now sufficient evidence from both human and animal studies that cumulative exposure to this adjuvant is not as benign as previously assumed. Because infants represent the most vulnerable population that is universally and routinely exposed to aluminum adjuvants, a more rigorous evaluation of its potentially adverse neuro-developmental impacts is needed. Further research should be conducted about the etiology of autism spectrum disorders.
2023	https://pubmed.ncbi.nlm.nih.gov/36673825/	The safety of mercury-containing thimerosal [in vaccines] and, notably, its effectiveness as preservative in vaccines are still under debate regarding its potential dose-response effects to the central nervous system.
2021	https://www.oatext.com/pdf/JTS-3-187.pdf	Vaccination (i.e., receipt of one of more of the recommended vaccines) was significantly associated with NDD [neurodevelopmental disorders], while preterm birth without vaccination was not. Preterm birth coupled with vaccination, however, was associated with a synergistic increase in the odds of NDD, suggesting the possibility that vaccination could precipitate adverse neurodevelopmental outcomes in preterm infants. These results provide clues to the epidemiology and causation of NDD but question the safety of current vaccination programs for preterm infants.
2021	https://pubmed.ncbi.nlm.nih.gov/33930617/	The association between aluminum adjuvants in the vaccines and autism spectrum disorder is suggested by multiple lines of evidence.
2020	https://pubmed.ncbi.nlm.nih.gov/32537156/	Vaccination before 1 year of age was associated with increased odds of developmental delays... Further study is necessary to understand the full spectrum of health effects associated with childhood vaccination.
2020	https://pubmed.ncbi.nlm.nih.gov/33198395/	The increasing rates of allergy, ear infections, and neurodevelopmental disorders (NDDs) in countries with high rates of vaccination could be related to mass vaccination and to its impact on liver function and vitamin A metabolism
2020	https://pubmed.ncbi.nlm.nih.gov/31841767/	Ethylmercury-containing compounds and Thimerosal readily cross the BBB [blood-brain barrier], convert...to highly toxic inorganic mercury-containing compounds, which significantly and persistently bind to tissues in the brain.

2018	https://pubmed.ncbi.nlm.nih.gov/29481853/	The results of this preclinical study, consistent with previous studies on mice and rats, reveals that neonatal dose-dependent exposure to Thimerosal mimicking the childhood vaccine schedule can induce abnormal social interactions and stereotyped behaviors similar to those observed in neurodevelopmental disorders such as autism
2018	https://pubmed.ncbi.nlm.nih.gov/29721353/	Fluoride and aluminium (Al3+) can exacerbate the pathological problems [of autism] by worsening excitotoxicityand inflammation [in the brain.]
2017	https://howdovaccinescauseautism.org/wp-content/uploads/2018/08/Mawson-2017.pdf	The apparent "dose-response" relationship between vaccination status and several forms of chronic illness, and the significant association between vaccination and NDDs all support the possibility that some aspect of the current vaccination program could be contributing to risks of childhood morbidity. Vaccination also remained significantly associated with NDD… preterm birth coupled with vaccination was associated with an apparent synergistic increase in the odds of NDD above that of vaccination alone. Nevertheless, the study findings should be interpreted with caution.
2017	https://link.springer.com/article/10.1007/s11011-017-0077-2	Autism Spectrum Disorder and Alzheimer's Disease are increasingly considered to be heterogeneous syndromes… significant quantities of aluminium introduced via immunisation could produce chronic neuropathology in genetically susceptible children… it is recommended that the use of aluminium salts in immunisations should be discontinued and that adults should take steps to minimise their exposure to environmental aluminium.
2017	https://pubmed.ncbi.nlm.nih.gov/27816865/	Scientific evidence has shown the potential hazards of Thimerosal in experiments.
2016	https://www.sciencedirect.com/science/article/pii/S0946672X16300931	From this inventory of the available research, it is clear that the vast majority of the research, conducted by multiple research groups, from many different countries, using many different methodologies, supports a link between mercury exposure and a diagnosis of ASD. In this evaluation, it was found that 74% of studies support a link between mercury exposure and ASD, which corroborates a previous evaluation of the same issue conducted in 2010.
2015	https://europepmc.org/article/MED/26103708	Genes that have been linked to autism (autism associated genes; AAGs) have a more concentrated susceptibility for insults to genomic stability in comparison to the group of all genes contained within the human genome… Vaccines manufactured in human fetal cell lines contain unacceptably high levels of fetal DNA fragment contaminants. The human genome naturally contains regions that are susceptible to double strand break formation and DNA insertional mutagenesis.

2014	https://academic.oup.com/toxsci/article/139/2/452/2511500	The elevation of anterior pituitary secreting hormones occurred exclusively in male but not in female thimerosal-treated mice, demonstrating for the first time the gender bias of thimerosal-mercury toxicity with regard to endocrine system. Our results indicate that higher dose of neonatal thimerosal-mercury (20× higher than that used in human) is capable of inducing long-lasting substantial dysregulation of neurodevelopment, synaptic function, and endocrine system, which could be the causal involvements of autistic-like behavior in mice.
2014	https://howdovaccinescauseautism.org/wp-content/uploads/2019/01/Deisher-2014.pdf	Rising autistic disorder prevalence is directly related to vaccines manufactured utilizing human fetal cells.
2014	https://www.hindawi.com/journals/jt/2014/491316/	These findings plausibly implicate Al adjuvants in pediatric vaccines as causal factors contributing to increased rates of autism spectrum disorders in countries where multiple doses are almost universally administered.
2014	https://pubmed.ncbi.nlm.nih.gov/24995277/	The US CDC states that Thimerosal is safe and there is "no relationship between [T]himerosal [-] containing vaccines and autism rates in children." …in a study conducted directly by CDC epidemiologists, a 7.6-fold increased risk of autism from exposure to Thimerosal during infancy was found.[1]
2014	https://ijme.in/articles/commentary-controversies-surrounding-mercury-in-vaccines-autism-denial-as-impediment-to-universal-immunisation/?galley=html	It is biologically plausible that mercury toxicity in genetically susceptible persons may contribute to the numbers with autism and ASD… The apparent linkage of autism to the MMR vaccine (which is Thimerosal free) seems to suggest that mercury exposure through Thimerosal-containing vaccines is not the only factor that may be responsible for the subsequent "autism" and "ASD" diagnoses in developing children.
2014	https://pubmed.ncbi.nlm.nih.gov/25377033/	In 2004, the US (CDC) published a paper showing that there is no link between the age at which a child is vaccinated with MMR and the vaccinated children's risk of a subsequent diagnosis of autism. One of the authors, William Thompson… revealed that statistically significant information was deliberately omitted from the paper. Thompson first told Dr S Hooker, a researcher on autism, about the manipulation of the data. Hooker analysed the raw data from the CDC study afresh. He confirmed that the risk of autism among African American children vaccinated before the age of 2 years was 340% that of those vaccinated later.[2]
2013	https://bmcmedicine.biomedcentral.com/articles/10.1186/1741-7015-11-99	Nanomaterials can be transported by monocyte-lineage cells to DLNs, blood and spleen, and, similarly to HIV, may use CCL2-dependent mechanisms to penetrate the brain… continuously escalating doses of this poorly biodegradable adjuvant in the population may become insidiously unsafe, especially in the case of over-immunization or immature/altered blood brain barrier or high constitutive CCL-2 production.

2013	https://link.springer.com/article/10.1007/s12026-013-8403-1	In young children, a highly significant correlation exists between the number of pediatric aluminum-adjuvanted vaccines administered and the rate of autism spectrum disorders. Many of the features of aluminum-induced neurotoxicity may arise, in part, from autoimmune reactions, as part of the ASIA syndrome.
2013	https://pubmed.ncbi.nlm.nih.gov/23843785/	This suggests certain individuals with a mild mitochondrial defect may be highly susceptible to mitochondrial specific toxins like the vaccine preservative thimerosal.
2013	https://www.sciencedirect.com/science/article/abs/pii/S0162013413001773	Administration of aluminium to neonatal mice in amounts comparable to those to children receive via routine vaccinations significantly increases anxiety and reduces exploratory behaviour and locomotor activities. The neuro-disruptive effects of aluminium are long-lasting and persist for 6 months following injection… we compared the amount of Al in various national paediatric vaccine schedules with increasing rates of autism spectrum disorder (ASD) and found a significant correlation that appeared to be dose-dependent
2013	https://howdovaccinescauseautism.org/wp-content/uploads/2019/01/Chen-2013.pdf	The negative adverse consequences on neurodevelopment observed in the present study are consistent with previous studies; this study raised serious concerns about adverse neuro-developmental disorder such as autism in humans following the ongoing worldwide routine administration of thimerosal-containing vaccines to infants.
2013	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3878266/	The present study provides new epidemiological evidence supporting an association between increasing organic-Hg exposure from Thimerosal-containing childhood vaccines and the subsequent risk of an ASD diagnosis.
2013	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697751/	Here we show that a subpopulation of 4 individuals with autism, along with some of their siblings, have B-cells exhibiting hypersensitivity toward thimerosal… Thus, certain individuals with a mild mitochondrial defect may be highly susceptible to mitochondrial specific toxins like the vaccine preservative thimerosal… hypersensitive populations have poorer antioxidant defenses, elevated markers of oxidative stress, and high lactate levels. These findings are consistent with a metabolic fingerprint typically found in 20% of ASD individuals, plasma hyperlactacidemia.
2013	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3774468/	With the rate of children diagnosed with an ASD in the US now exceeding 1 in 50 children [166] and the rate of children with neurodevelopmental/behavioral disorders in the US now exceeding 1 in 6 children [167], and the preceding evidence showing that there is vulnerability to TM that would not be known without extensive testing, the preponderance of the evidence indicates that TM should be removed from all vaccines.
2012	https://pubmed.ncbi.nlm.nih.gov/22015705/	Our data thus demonstrate a negative neuro-developmental impact of perinatal TM exposure which appears to be both strain- and sex-dependent

2012	https://journals.sagepub.com/doi/10.1177/0961203311430221	Immune challenges during early development, including those vaccine-induced, can lead to permanent detrimental alterations of the brain and immune function. Experimental evidence also shows that simultaneous administration of as little as two to three immune adjuvants can overcome genetic resistance to autoimmunity… children are regularly exposed to much higher amounts of Al from vaccines than adults… it is now clearly established that there is a bidirectional neuro-immune cross-talk that plays crucial roles in immunoregulation as well as brain function. In turn, perturbations of the neuro-immune axis have been demonstrated in many autoimmune diseases. .. the same components of the neuro-immune axis that play key roles in brain development and immune function are heavily targeted by Al adjuvants.
2012	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3395253/	Thimerosal generates ethylmercury in aqueous solution and is widely used as preservative. We have investigated the toxicology of Thimerosal in normal human astrocytes… The results of this study suggest that ethylmercury is a mitochondrial toxin in human astrocytes. We believe that this finding is important, particularly since the number of diseases in which mitochondrial dysfunction has been implicated are rapidly increasing.
2012	https://www.mdpi.com/1099-4300/14/11/2227	We propose that children with the autism diagnosis are especially vulnerable to toxic metals such as aluminum and mercury due to insufficient serum sulfate and glutathione. A strong correlation between autism and the MMR (Measles, Mumps, Rubella) vaccine is also observed, which may be partially explained via an increased sensitivity to acetaminophen administered to control fever.
2011	https://www.sciencedirect.com/science/article/abs/pii/S0166432811003366	These data document that early postnatal THIM administration causes lasting neurobehavioral impairments and neurochemical alterations in the brain, dependent on dose and sex. If similar changes occur in THIM/mercurial-exposed children, they could contribute do neurodevelopmental disorders.
2011	https://howdovaccinescauseautism.org/wp-content/uploads/2018/08/Tomljenovic-2011.pdf	Our results show that: (i) children from countries with the highest ASD prevalence appear to have the highest exposure to Al from vaccines; (ii) the increase in exposure to Al adjuvants significantly correlates with the increase in ASD prevalence in the US observed over the last two decades; and (iii) a significant correlation exists between the amounts of Al administered to preschool children and the current prevalence of ASD in seven Western countries, particularly at 3-4months of age. The application of the Hill's criteria to these data indicates that the correlation between Al in vaccines and ASD may be causal. Because children represent a fraction of the population most at risk for complications following exposure to Al, a more rigorous evaluation of Al adjuvant safety seems warranted.

2011	https://www.sciencedirect.com/science/article/abs/pii/S0306987711004117	Conjugate vaccines fundamentally change the manner in which the immune systems of infants and young children function by deviating their immune responses to the targeted carbohydrate antigens from a state of hypo-responsiveness to a robust B2 B cell mediated response. This period of hypo-responsiveness to carbohydrate antigens coincides with the intense myelination process in infants and young children, and conjugate vaccines may have disrupted evolutionary forces that favored early brain development over the need to protect infants and young children from capsular bacteria.
2011	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3264864/	Thimerosal, a mercury-containing vaccine preservative, is a suspected factor in the etiology of neurodevelopmental disorders. We previously showed that its administration to infant rats causes behavioral, neurochemical and neuropathological abnormalities similar to those present in autism… Since excessive accumulation of extracellular glutamate is linked with excitotoxicity, our data imply that neonatal exposure to thimerosal-containing vaccines might induce excitotoxic brain injuries, leading to neurodevelopmental disorders.
2011	https://pubmed.ncbi.nlm.nih.gov/20010978/	A positive and statistically significant relationship was found: The higher the proportion of children receiving recommended vaccinations, the higher was the prevalence of AUT or SLI. A 1% increase in vaccination was associated with an additional 680 children having AUT or SLI.
2011	https://digitalcommons.pace.edu/cgi/viewcontent.cgi?article=1681&context=pelr	This finding of autism in compensated cases of vaccine injury is significant. U.S. government spokespeople have been asserting no vaccine-autism link for more than a decade. This finding calls into question the decisions of the Court of Federal Claims in the Omnibus Autism Proceeding in 2009 and 2010 and the statement of Health and Human Services on its website that "HHS has never concluded in any case that autism was caused by vaccination
2011	https://link.springer.com/article/10.1007/s11064-011-0427-0	There is a need to interpret neurotoxic studies to help deal with uncertainties surrounding pregnant mothers, newborns and young children who must receive repeated doses of Thimerosal-containing vaccines (TCVs)… doses relevant to TCV exposure possess the potential to affect human neuro-development. Thimerosal at concentrations relevant for infants' exposure (in vaccines) is toxic to cultured human-brain cells and to laboratory animals.
2010	https://www.researchgate.net/publication/49746324_Lasting_neuropathological_changes_in_rat_brain_after_intermittent_neonatal_administration_of_thimerosal	These findings document neurotoxic effects of thimerosal, at doses equivalent to those used in infant vaccines or higher, in developing rat brain, suggesting likely involvement of this mercurial in neurodevelopmental disorders.

2010	https://www.tandfonline.com/doi/abs/10.1080/15287394.2011.573736	A positive and statistically significant relationship was found: The higher the proportion of children receiving recommended vaccinations, the higher was the prevalence of AUT or SLI. A 1% increase in vaccination was associated with an additional 680 children having AUT or SLI… The results suggest that although mercury has been removed from many vaccines, other culprits may link vaccines to autism. Further study into the relationship between vaccines and autism is warranted.
2010	https://pubmed.ncbi.nlm.nih.gov/19732784/	Mercury (Hg) exposure from dental amalgam fillings and thimerosal in vaccines is not a major health hazard, but adverse health effects cannot be ruled out in a small and more susceptible part of the exposed population. Individual differences in toxicokinetics may explain susceptibility to mercury.
2010	https://pubmed.ncbi.nlm.nih.gov/20628439/	These results suggest that maturational changes in amygdala volume and the binding capacity of [(11)C]DPN in the amygdala was significantly altered in infant macaques receiving the vaccine schedule. The macaque infant is a relevant animal model in which to investigate specific environmental exposures and structural/functional neuroimaging during neurodevelopment.
2010	https://jneuroinflammation.biomedcentral.com/counter/pdf/10.1186/1742-2094-7-20.pdf	HgCl2 stimulates VEGF and IL-6 release from human mast cells. This phenomenon could disrupt the blood-brain-barrier and permit brain inflammation. As a result, the findings of the present study provide a biological mechanism for how low levels of mercury may contribute to ASD pathogenesis… a paper based on computerized medical records in the Vaccine Safety Datalink concluded there was "significantly increased rate ratios for ASD with mercury exposure from thiomerosal-containing vaccines."
2010	https://pubmed.ncbi.nlm.nih.gov/21058170/	Findings suggest that U.S. male neonates vaccinated with the hepatitis B vaccine prior to 1999 (from vaccination record) had a threefold higher risk for parental report of autism diagnosis compared to boys not vaccinated as neonates during that same time period. Nonwhite boys bore a greater risk.
2010	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2957583/pdf/11064_2010_Article_250.pdf	These data document that exposure to thimerosal during early postnatal life produces lasting alterations in the densities of brain opioid receptors along with other neuropathological changes, which may disturb brain development.
2010	https://pubmed.ncbi.nlm.nih.gov/21623535/	Need to study long-term effects of early exposure to neuro-toxic substances on the developing brain. Pragmatic vaccine safety needs to embrace conventional toxicology, addressing especial characteristics of unborn luminiu, neonates and infants exposed to low levels of aluminium, and ethylmercury traditionally considered innocuous to the central nervous system

2010	https://pubmed.ncbi.nlm.nih.gov/19357975/	As a result of the present findings, in combination with the brain pathology observed in patients diagnosed with autism, the present study helps to support the possible biological plausibility for how low-dose exposure to mercury from thimerosal-containing vaccines may be associated with autism.
2009	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3364648/pdf/NAJMS-1-28.pdf	This article explores the issues and concludes that sensory dysfunction and systemic failure, manifested as autism, is the inevitable consequence arising from subtle DNA alteration and consequently from the overuse of vaccines.
2009	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2717775/	Cellular and mitochondrial glutathione redox imbalance in lymphoblastoid cells derived from children with autism… Based on previous experimental evidence and the results reported here, it is plausible to hypothesize that exposures to prooxidant environmental toxins, including thimerosal, would have the greatest effect on individuals with a preexisting fragile redox homeostasis or depleted glutathione reserves due to concurrent infection, or who are simultaneously exposed to other prooxidant contaminants that in combination can reach a toxic threshold.
2009	https://pubmed.ncbi.nlm.nih.gov/18771903/	Our studies, although not directly addressing the controversy surrounding thimerosal and autism, and still preliminary due to small numbers of mice examined, provide, nevertheless, the first report of gender-selective toxicity of thimerosal and indicate that any future studies of thimerosal toxicity should take into consideration gender-specific differences.
2009	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3364648/	Children with autism have greater amounts of mercury and other heavy metals in their system. For these children the exposure route is considered to be predominately via childhood vaccines, most of which contain thimerosal. Vaccinated children… 10-20 kgs are exposed to an adult overdose of mercury, over 62.5 micrograms of mercury within the first three months, which significantly increases a child's risk of developing some form of neuro-developmental disorder… Now it is illustrated that the consequences of intensive vaccination schedules pose a greater risk than could ever have been imagined.
2008	https://journals.sagepub.com/doi/10.1177/1362361307089518	This preliminary study found that acetaminophen use after measles-mumps-rubella vaccination was associated with autistic disorder.
2008	https://pubmed.ncbi.nlm.nih.gov/18197631/	Thimerosal is an organic mercury compound that is widely used as a preservative in vaccines and other solution formulations. The use of thimerosal has caused concern about its ability to cause neurological abnormalities due to mercury accumulation during a normal schedule of childhood vaccinations…. In conclusion, these studies have elucidated some of the chemistry and biological activities of the interaction of thimerosal with topoisomerase II alpha and protein and nonprotein thiols and with DNA.

2008	https://pubmed.ncbi.nlm.nih.gov/18482737/	Consistent significantly increased rate ratios were observed for autism, autism spectrum disorders, tics, attention deficit disorder, and emotional disturbances with Hg exposure from TCVs [Thimerosal-containing vaccines.]
2008	https://www.tandfonline.com/doi/abs/10.1080/02772240701806501#.Ue8MEY1wqSo	This study found statistically significant evidence to suggest that boys in United States who were vaccinated with the triple series Hepatitis B vaccine, during the time period in which vaccines were manufactured with thimerosal, were more susceptible to developmental disability than were unvaccinated boys.
2008	https://pubmed.ncbi.nlm.nih.gov/19043938/	A careful review of ASD cases discloses a number of events that adhere to an immunoexcitotoxic mechanism. This mechanism explains the link between excessive vaccination, use of aluminum and ethylmercury as vaccine adjuvants, food allergies, gut dysbiosis, and abnormal formation of the developing brain.
2008	https://pubmed.ncbi.nlm.nih.gov/19043939/	The history of vaccinations in the light of the autism epidemic
2008	https://pubmed.ncbi.nlm.nih.gov/19106436/	the overwhelming preponderance of the evidence favours acceptance that Hg [mercury] exposure is capable of causing some ASDs.
2007	https://pubmed.ncbi.nlm.nih.gov/17674242/	The results provide insights into the potential role prenatal mercury exposure may play in some children with ASDs.
2007	https://pubmed.ncbi.nlm.nih.gov/17454560/	There was a significant dose-response relationship between the severity of the regressive ASDs observed and the total mercury dose children received from Thimerosal-containing vaccines/Rho (D)-immune globulin preparations… 8 of 9 patients examined were exposed to significant mercury from Thimerosal-containing biologic/vaccine preparations during their fetal/infant developmental periods, and subsequently, between 12 and 24 months of age.
2006	https://pubmed.ncbi.nlm.nih.gov/17974154/	It is concluded that, autoimmune response to dietary proteins and deficient immune response to measles, mumps and rubella vaccine antigens might be associated with autism, as a leading cause or a resulting event.
2006	http://toxsci.oxfordjournals.org/content/92/1/246.full.pdf+html	Taken together, these results indicate that thimerosal-induced neurotoxicity occurs through the JNK-signaling pathway, independent of cJun activation, leading ultimately to apoptotic cell death.
2006	https://pubmed.ncbi.nlm.nih.gov/16870260/	Thimerosal, an anti-microbial preservative previously added routinely to childhood multi-dose vaccines, is composed of 49.6% ethyl mercury. Based on the levels of this toxin that children receive through routine immunization schedules in the first years of life, it has been postulated that thimerosal may be a potential triggering mechanism contributing to autism in susceptible individuals…the differences in expression profiles between those cells treated with zinc versus thimerosal were dramatic.

2006	https://pubmed.ncbi.nlm.nih.gov/16766480/	Significantly increased odds ratios for autism, speech disorders, mental retardation, infantile spasms, and thinking abnormalities ...were found following DTP vaccines in comparison to DTPH vaccines [where those children who received the DTP vaccine received an additional 100 mug more mercury exposure than those who received the DTPH vaccine.]
2005	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1280342/	Knowledge of the biotransformation of thimerosal, the chemical identity of the Hg-containing species in the blood and brain, and the neurotoxic potential of intact thimerosal and its various biotransformation products, including ethylmercury, is urgently needed to afford a meaningful interpretation of the potential developmental effects of immunization with thimerosal-containing vaccines in newborns and infants. This information is critical if we are to respond to public concerns regarding the safety of childhood immunizations.
2005	https://howdovaccinescauseautism.org/2005/05/01/infection-vaccines-and-other-environmental-triggers-of-autoimmunity/	Three major neurological autoimmune manifestations have been addressed in conjunction with vaccination: the GBS, MS and autism… Vaccines, in several reports were found to be temporally followed by a new onset of autoimmune diseases. The same mechanisms that act in infectious invasion of the host, apply equally to the host response to vaccination.
2005	https://www.sciencedirect.com/science/article/abs/pii/S0161813X05000288	Recently the safety of thimerosal, an ethyl mercury-containing preservative used in vaccines, has been questioned due to exposure of infants during immunization… these findings suggest deleterious effects on the cytoarchitecture [cellular composition of the central nervous system's tissues] by thimerosal and initiation of mitochondrial-mediated apoptosis [cell death].
2005	https://howdovaccinescauseautism.org/wp-content/uploads/2018/08/Haley-2005.pdf	This data show that… autistic children have exceptionally low levels of birth hair mercury, no matter what the number of amalgam fillings are found in the birth mother. This data strongly implies that autistic children represent a subset of the population that does not effectively excrete mercury from their cells… Testosterone which appeared protective at very low levels dramatically increased neuron death at higher levels. In fact, 1.0 micromolar levels of testosterone that by itself did not significantly increase neuron death (red flattened oval), within 3 hours when added with 50 nanomolar thimerosal (solid circles) caused 100% neuron death… These testosterone results, while not conclusive because of the in vitro neuron culture type of testing, clearly demonstrated that male versus female hormones may play a major role in autism risk and may explain the high ratio of boys to girls in autism (4 to 1) and autism related disorders.
2005	https://howdovaccinescauseautism.org/2005/09/20/nanomolar-aluminum-induces-pro-inflammatory-and-pro-apoptotic-gene-expression-in-human-brain-cells-in-primary-culture/	The promoters of genes up-regulated by aluminum are enriched in binding sites for the stress-inducible transcription factors HIF-1 and NF-kappaB, suggesting a role for aluminum, HIF-1 and NF-kappaB in driving atypical, pro-inflammatory and pro-apoptotic gene expression. The effect of aluminum on specific stress-related gene expression patterns in human brain cells clearly warrant further investigation.

2005	https://pubmed.ncbi.nlm.nih.gov/16264412/	it was found that autistic children had a higher mercury exposure during pregnancy due to maternal dental amalgam and thimerosal-containing immunoglobulin shots. It was hypothesized that children with autism have a decreased detoxification capacity due to genetic polymorphism.
2005	https://pubmed.ncbi.nlm.nih.gov/16273274/	There is a worldwide increasing concern over the neurological risks of thimerosal (ethylmercury thiosalicylate) which is an organic mercury compound that is commonly used as an antimicrobial preservative. In this study, we show that thimerosal, at nanomolar concentrations, induces neuronal cell death through the mitochondrial pathway.
2005	https://pubmed.ncbi.nlm.nih.gov/15795695/	Exposure to mercury from TCVs administered in the US was a consistent significant risk factor for the development of NDs [neurodevelopmental disorders.]
2004	https://www.nature.com/articles/4001476	Our findings outline a novel growth factor signaling pathway that regulates MS activity and thereby modulates methylation reactions, including DNA methylation. The potent inhibition of this pathway by ethanol, lead, mercury, aluminum and thimerosal suggests that it may be an important target of neurodevelopmental toxins.
2004	https://pubmed.ncbi.nlm.nih.gov/15082108/	The Institute of Medicine (IOM) reviewed the connection between mercury-containing vaccines and neurodevelopmental disorders, including autism. They concluded that the hypothesis was biologically plausible… We provide evidence here… to defend the autism-mercury hypothesis.
2004	https://pubmed.ncbi.nlm.nih.gov/14976450/	A comparative evaluation of the effects of MMR immunization and mercury doses from thimerosal-containing childhood vaccines on the population prevalence of autism.
2004	https://journals.sagepub.com/doi/10.1177/153537020322800603	We were initially highly skeptical that differences in the concentrations of thimerosal in vaccines would have any effect on the incidence rate of neurodevelopmental disorders after childhood immunization. This study presents the first epidemiologic evidence, based upon tens of millions of doses of vaccine administered in the United States, that associates increasing thimerosal from vaccines with neurodevelopmental disorders… An association between neurodevelopmental disorders and thimerosal-containing DTaP vaccines was found, but additional studies should be conducted to confirm and extend this study.
2003	https://www.pedneur.com/article/S0887-8994(02)00627-6/abstract	The level of measles antibody, but not mumps or rubella antibodies, was significantly higher in autistic children as compared with normal children or siblings of autistic children… The antibody to this antigen was found in 83% of autistic children but not in normal children or siblings of autistic children. Thus autistic children have a hyperimmune response to measles virus, which in the absence of a wild type of measles infection might be a sign of an abnormal immune reaction to the vaccine strain or virus reactivation.

2003	https://pubmed.ncbi.nlm.nih.gov/14534046/	Neurodevelopmental disorder dose-response curves for increasing mercury doses of thimerosal in childhood vaccines were determined based upon examination of the Vaccine Adverse Events… The evidence presented here shows that the occurrence of neurodevelopmental disorders following thimerosal-containing childhood vaccines does not appear to be coincidental.
2003	https://academic.oup.com/toxsci/article/74/2/361/1716337	We demonstrate that thimerosal in micromolar concentrations rapidly induce membrane and DNA damage and initiate caspase-3–dependent apoptosis in human neurons and fibroblasts.
2003	https://pubmed.ncbi.nlm.nih.gov/12933322/	Reported rates of autism have increased sharply in the United States and the United Kingdom. One possible factor underlying these increases is increased exposure to mercury through thimerosal-containing vaccines, but vaccine exposures need to be evaluated in the context of cumulative exposures during gestation and early infancy… The mothers in the autistic group had significantly higher levels of mercury exposure through Rho D immunoglobulin injections and amalgam fillings than control mothers.
2002	https://pubmed.ncbi.nlm.nih.gov/12145534/	We suggest that an inappropriate antibody response to MMR, specifically the measles component thereof, might be related to pathogenesis of autism.
2001	https://www.sciencedirect.com/science/article/abs/pii/S0306987700912817	A review of medical literature and US government data suggests that: (i) many cases of idiopathic autism are induced by early mercury exposure from thimerosal; (ii) this type of autism represents an unrecognized mercurial syndrome; and (iii) genetic and non-genetic factors establish a predisposition whereby thimerosal's adverse effects occur only in some children.
2001	https://howdovaccinescauseautism.org/wp-content/uploads/2019/01/Singh-2002.pdf	We suggest that an inappropriate antibody response to MMR, specifically the measles component thereof, might be related to pathogenesis of autism.
2001	https://pubmed.ncbi.nlm.nih.gov/11339848/	A review of medical literature and US government data suggests that: (i) many cases of idiopathic autism are induced by early mercury exposure from thimerosal; (ii) this type of autism represents an unrecognized mercurial syndrome; and (iii) genetic and non-genetic factors establish a predisposition whereby thimerosal's adverse effects occur only in some children.
2000	https://www.sciencedirect.com/science/article/abs/pii/S0022347600896560	Post-vaccination mercury levels were significantly higher in preterm infants as compared with term infants. Because mercury is known to be a potential neurotoxin to infants, further study of its pharmacodynamics is warranted.

1. Despite CDC's claim there's no relationship between [T]himerosal[-]containing vaccines and autism rates in children, their own study showed an increased risk of autism
2. CDC deliberately omitted vital data in a 2004 study about children's risk of a subsequent diagnosis of autism from vaccines.

Plus 2002 Video - 3½ hrs of testimony: https://www.c-span.org/video/?174176-1/childhood-vaccines-autism

Sources: lots of research and some help from studies linked here: https://howdovaccinescauseautism.org/ (thank you)