

# Why Autism Happens

autism answers & prevention

**Question:** What causes autism? Why is there an autism spike?

**Answer:** There are a number of autism causes: pollution, drugs, genetic constraints, and occasionally immunizations. But new research shows fathers are passing 80% of mutations leading to autism. An environmental toxin affecting men's reproductive DNA was introduced around 1995, causing autism to spike in children.



## The Silent Autism Carriers

Fathers are four times more likely than mothers to transmit DNA glitches leading to autism in offspring (U.S. Department of Health) (<http://www.nimh.nih.gov/science-news/2012/spontaneous-gene-glitches-linked-to-autism-risk-with-older-dads.shtml>).

In other words, fathers are passing 80% of mutations leading to autism, and this should change the way you think about autism (Sanders et al 2012) (<http://www.nature.com/nature/journal/v485/n7397/full/nature10989.html>). For instance, fathers contribute DNA to make a baby long before an immunization is ever given to the baby.

There were 3,957,577 births in the United States in 2013 (Hamilton et al 2013) ([http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63\\_02.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63_02.pdf)). At the current parent-reported autism rate of one in 50 school-aged children (Blumberg et al 2013) (<http://www.cdc.gov/nchs/data/nhsr/nhsr065.pdf>), U.S. fathers are causing over 36,000 new cases of autism *each year* (see calculation).

**What has happened to men's reproductive DNA?** This is the biggest health mystery of the last 20 years, and the answer lies in a law of physics based on the same forces described by Isaac Newton.

## Coulomb's Law

The missing link explaining why men are the silent carriers of autism is actually a simple law of physics called Coulomb's inverse-square law. The discussion notes of this analysis on cell phones and autism

$$i = \frac{1}{d^2}$$

(<http://www.cellphonesautism.com/autismstudy/Autism%20CellPhone%20Study.pdf>) explain the physics behind our autism spike:

Based on Coulomb's inverse-square law ([http://en.wikipedia.org/wiki/Coulomb's\\_law](http://en.wikipedia.org/wiki/Coulomb's_law)), the comparative force of RF energy on reproductive DNA between the sexes may be calculated. When carried in a front trouser pocket, a mobile phone is in the order of 20 centimeters in distance from female reproductive DNA, but only 5 centimeters in distance from male reproductive DNA. By Coulomb's law, as distance is increased by a factor of four, electrostatic force is decreased by a factor of 16. In our trouser pocket scenario, male reproductive DNA receives 16 times greater force of RF radiation than female reproductive DNA.

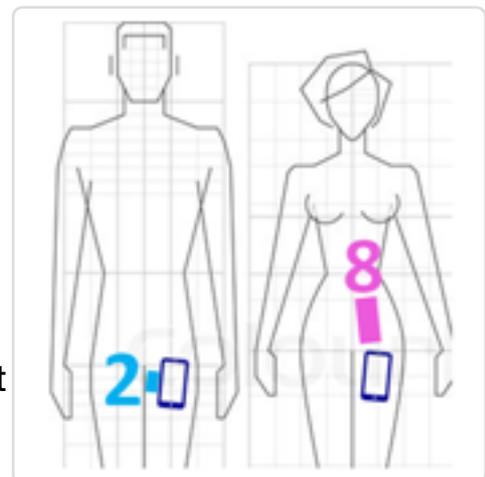
When men and women put their cell phones in their front pockets, **men's reproductive DNA is getting 16 times more genotoxic radiation.** And this explains how fathers have come to drive a worldwide autism spike. It's that simple.

Are we saying cell phones are causing all autism? No; we're saying the way men carry cell phones is causing a high rate of fragmentation in their reproductive DNA, which is causing the *spike* in autism since 1995.

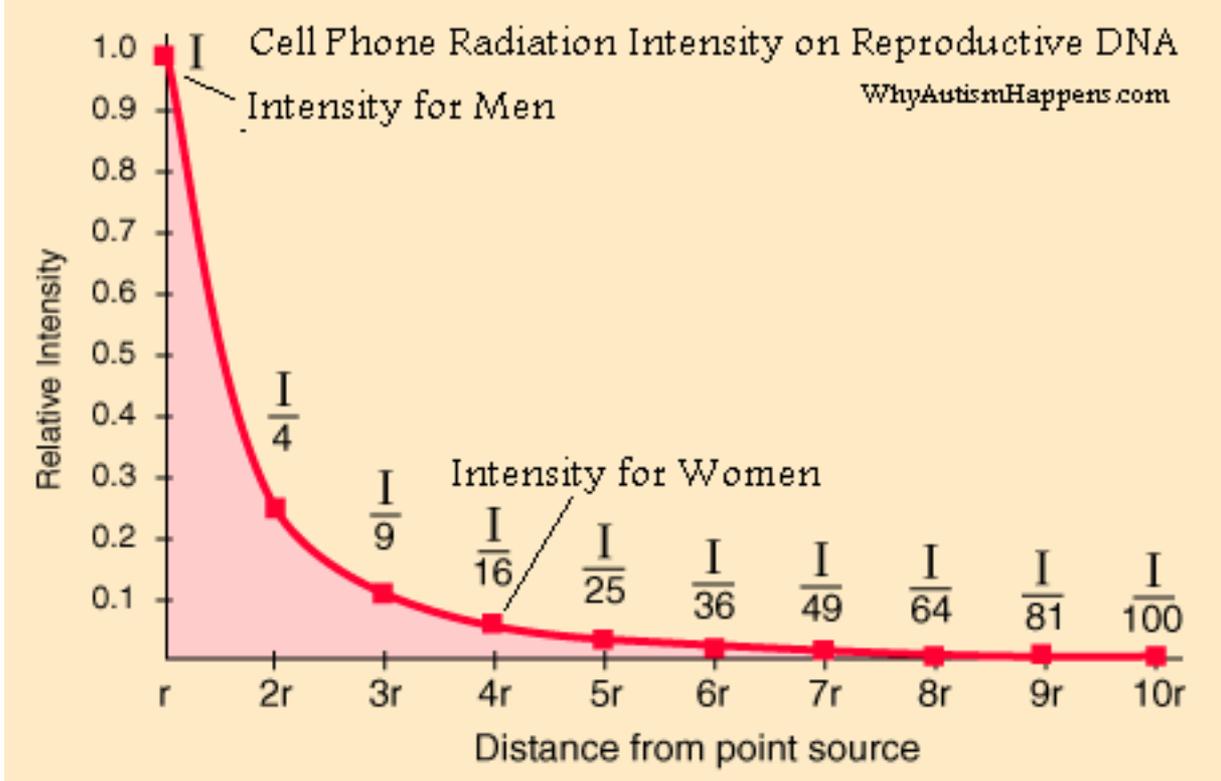
### What the Physics Looks Like

The inverse-square law dates all the way back to Isaac Newton's *Principia* and universal gravitation. Quite simply, as distance doubles, force decreases by a factor of four.

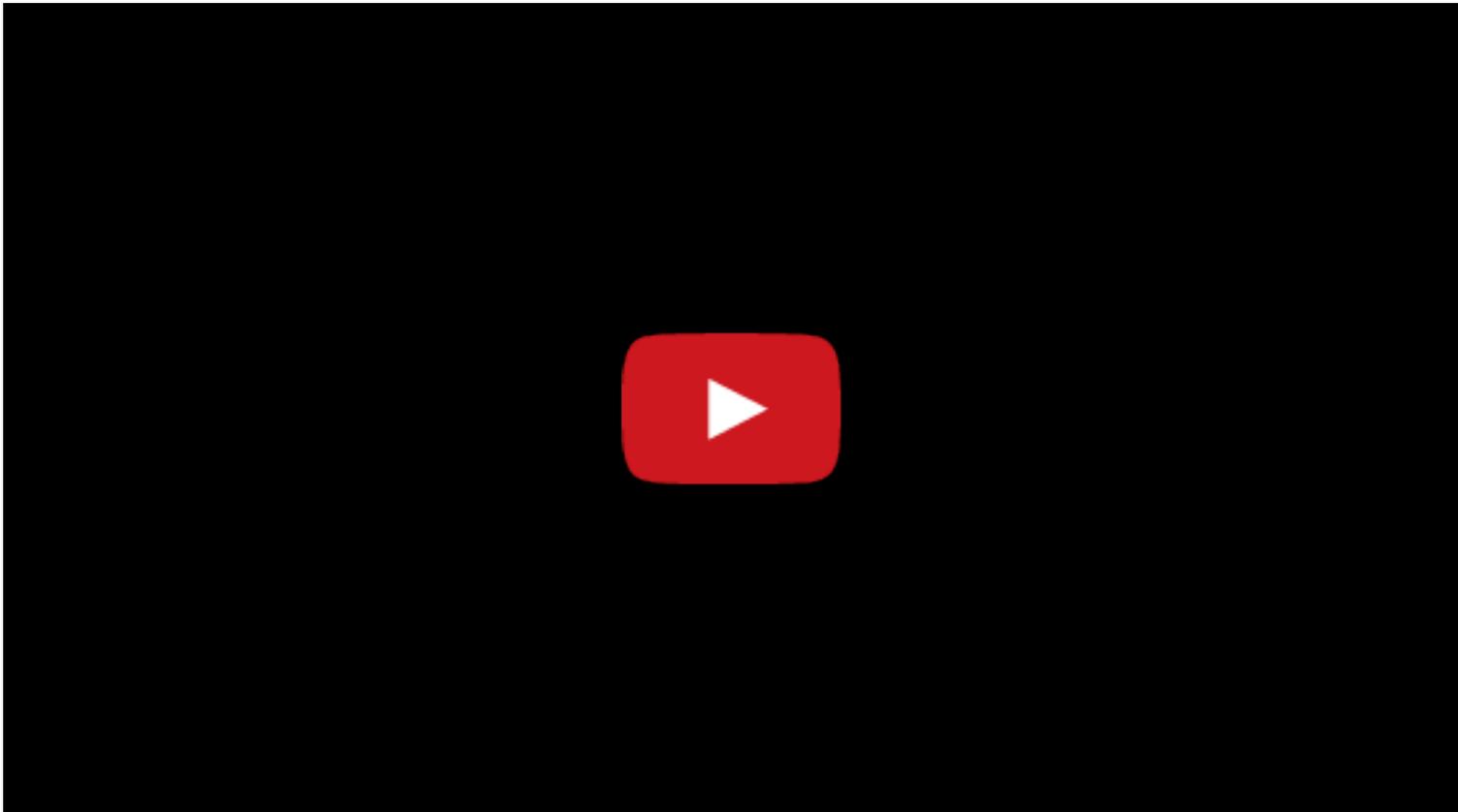
This has real world implications when it comes to radiation and reproductive DNA. People often carry cell phones in front pockets, where the low-dose radiation emissions come four times closer to men's reproductive DNA. Because of this slight difference in distance, the effect is that men's reproductive DNA receives 16 times greater radiation.



This asymmetric, genotoxic exposure between the sexes is driving our autism spike.



Applying these physics to the way men and women carry cell phones explains why fathers have driven a large autism spike in recent decades.



### Data Shows Cell Phones Associated with Autism

Do cell phones cause autism? According to government data, they are associated. This cell phone autism analysis (<http://www.cellphonesautism.com/autismstudy/Autism%20CellPhone%20Study.pdf>) shows the association, using publically-available CDC and Federal Communications Commission (FCC) data. U.S. states with high rates of cell phone subscribers have much higher rates of autism. This shows use of cell phones by parents leads to autism in children.

But *not* the mother's use of cell phones. A cohort study (<http://www.ncbi.nlm.nih.gov/pubmed/23386674>) based on Amsterdam Born Children

found that maternal mobile phone use during pregnancy does *not* increase the odds of behavior problems in their children. This is another expression of Coulomb's law; the majority of new autism cases are coming from *men's* fragmented reproductive DNA.

## Older Fathers Theory is Wrong

There's a popular theory that the increase in autism is simply because fathers are older these days. This theory is wrong.

According to a CDC report

(<http://www.cdc.gov/nchs/data/nhsr/nhsr051.pdf>), as of 2010, the mean age at first birth for men is 25, which is unchanged from 2002.

Moreover, two-thirds of first births occur to men in their twenties. (Martinez G et al 2012) (<http://www.cdc.gov/nchs/data/nhsr/nhsr051.pdf>).



CDC data shows autism rates increased 23% from 2006 to 2008, but fathers *were not any older* during that time. Plus, two-thirds of first births came to men in their twenties, which is well within historical norms. **The data clearly shows our autism spike is *not* being caused by older fathers.** We need to look elsewhere.

## Father's Reproductive Cells and Baby

Men and women's reproductive DNA is in different places. Which makes a profound difference when it comes to our close, everyday radiation exposure that began about 20 years ago.



The Specific Absorption Rate (SAR) of cell phones is a measure of the amount of radio frequency (RF) energy our bodies get when we use them. Governments set SAR limits to protect people, but **governments never considered point-blank exposure to reproductive cells, and effects on offspring.**

Even *micro*-damage to reproductive DNA can cause autism in a baby, which introduces a big question. Do studies show mobile phone radiation damages men's reproductive cells? Yes, there are *lots* of studies showing this:

- "RF energy in both the power density and frequency range of mobile phones enhances mitochondrial reactive oxygen species generation by human spermatozoa, decreasing the motility and vitality of these cells while stimulating DNA base adduct formation and, ultimately **DNA fragmentation.**" (De Iuliis GN et al 2009)



- (<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0006446>)
- "We speculate that keeping the cell phone in a trouser pocket...may **negatively affect spermatozoa** and impair male fertility." (Agarwal A et al 2009) (<http://www.ncbi.nlm.nih.gov/pubmed/18804757>)
- "A recent study found that use of cell phones adversely **affects the quality of semen** by decreasing the sperm counts, motility, viability and morphology." (Deepinder F et al 2007) ([http://www.rbmojournal.com/article/S1472-6483\(10\)60338-](http://www.rbmojournal.com/article/S1472-6483(10)60338-)

0/abstract)

- "An increase in the percentage of **sperm cells with abnormal morphology** is associated with the duration of exposure to the waves emitted by GSM equipment." (Wdowiak et al 2007) (<http://www.aaem.pl/pdf/14169.pdf>)
- "These data suggest that EMR emitted by cellular phone influences human sperm motility. In addition to these acute adverse effects of EMR on sperm motility, long-term EMR exposure may lead to behavioral or **structural changes of the male germ cell. These effects may be observed later in life**, and they are to be investigated more seriously." (Erogul O et al 2006) (<http://www.ncbi.nlm.nih.gov/pubmed/16971222>)
- "The duration of possession and the daily transmission time correlated negatively with the proportion of rapid progressive motile sperm ( $r = -0.12$  and  $r = -0.19$ , respectively), and positively with the proportion of **slow progressive motile sperm** ( $r = 0.12$  and  $r = 0.28$ , respectively)." (Fejes I et al 2005) (<http://informahealthcare.com/doi/abs/10.1080/014850190924520>)
- "Prolonged exposure to [cell phone] RF-EMW can also cause **DNA damage**...which may accelerates neuronal and **spermatozoal cell death**...the SAR limit (maximum acceptable exposure limit) should be lowered for cellular phones." (Desai N et al 2009) (<http://www.biomedcentral.com/content/pdf/1477-7827-7-114.pdf>)
- "We examined 2110 men attending our infertility clinic from 1993 to October 2007...Our results showed that cell phone use **negatively affects sperm quality in men.**" (Gutschi T et al 2011) (<http://onlinelibrary.wiley.com/doi/10.1111/j.1439-0272.2011.01075.x/abstract;jsessionid=012ED6E13101A2E86DE2B7FD0AB47153.d03t02?deniedAccessCustomisedMessage=&userIsAuthenticated=false>)
- "while RFEMR does not have a dramatic impact on male germ cell development, a **significant genotoxic effect on epididymal spermatozoa** is evident and deserves further investigation." (Aitken RJ et al 2005) (<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2605.2005.00531.x/abstract?deniedAccessCustomisedMessage=&userIsAuthenticated=false>)
- "From a clinical perspective, we simply cannot ignore animal data that provide an **incontrovertible link between DNA damage in spermatozoa and defects in embryonic development.**" (Aitken RJ et al 2009) (<http://molehr.oxfordjournals.org/content/16/1/3.full>)
- "These findings have clear implications for the safety of extensive mobile phone use by males of reproductive age, potentially affecting both their fertility and **the health and wellbeing of their offspring.**" (De Iuliis GN et al 2009) (<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0006446>)



Tragically, of all human cells, sperm cells are the most vulnerable to the oxidative stress caused by RF energy. Why? For three reasons: 1) they lack the protective cytoplasm of other cells, 2) their makeup of DNA and polyunsaturated fatty acids are juicy targets for

oxidative stress, 3) they are natural generators of reactive oxygen in the first place (De Iuliis GN et al 2009)

(<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0006446>).

Are cell phones the only cause of male reproductive DNA fragmentation, and the only cause of autism? No. But, specifically, there is only one logical source of reproductive DNA fragmentation that started for large numbers of men in developed countries across the globe about 20 years ago, leading to a sustained autism spike.

Here's the pattern: 1) Cell phone fragments sperm cell 2) **Sick sperm cell fertilizes healthy egg** 3) Baby with spectrum disorder is born

Does this pass the commonsense test? Yes; the rise in autism since 1995 closely parallels the rise in autism in socioeconomic groups that gained access to cell phones since that time (rich whites first, minorities later on).

## More Data

If cell phones have caused autism to soar since men began carrying cell phones around 1995, then we should expect data on mental health disorders to tell a similar story. Damaged paternal reproductive DNA would not *exclusively* cause autism; there would be a large *spectrum* of difficult-to-diagnose mental health problems in children.

Specifically, we would expect mental health disorders to have skyrocketed for children born in the last twenty years, but to be about the same for adults. In fact, based on National Ambulatory Medical Care Survey data (<http://www.cdc.gov/nchs/ahcd.htm>), from 1995 to 2010, the diagnosis of mental health disorders *doubled* for those younger than 21, but increased by less than 6% for adults over the same period (Olfson et al 2013) (<http://archpsyc.jamanetwork.com/article.aspx?articleid=1784344>).



**The data shows the magnitude of damaged paternal DNA stretches beyond autism.** A child might inherit slightly-fragmented DNA and lose only a few IQ points; but many others that inherit moderate-to-severe fragmentation from their father will have life-long cognitive, social, and mental health problems. This could lead to *social instability in public schools* and across society.

## No Toxic Green Cloud

Rates of autism were flat around the world during the 1980s. Suddenly, in the 1990s a massive autism spike happened in the U.S., U.K., Canada, Japan and Scandinavia. Experts in autism research wrongly concluded there simply could not be any mysterious global environmental exposure that could reasonably cause an autism pandemic.

So a bogus theory was born: autism rates were always this high, but previous generations weren't smart enough to document autism correctly.

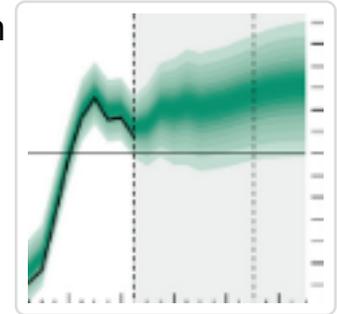
The problem: scientists were searching for a toxic green cloud floating around the world, causing autism. **But the missing link isn't green; it's invisible.** Since the 1990s, men in the U.S., U.K., Canada, Japan and Scandinavia have been busy putting low-level radiation-emitting devices next to their reproductive cells all day long.



Radiation-fragmented reproductive DNA explains why fathers are causing 80% of mutations leading to autism. Men have been the silent carriers of autism for the past 20 years.

## Economic Data

Autism has often been construed as a rich people's problem. Indeed, in the initial years, cell phones were expensive, and usually only rich, professional men carried them. The scientific association is actually "those men who are well-off enough to carry radiation-emitting mobile technology in their front pockets pass genetic mutations to their children at an exceptionally high rate."



In the 1990s, autism was often considered a Caucasian concern. That's because minorities were mostly too poor to afford the first generations of mobile technology. Now, most minorities can afford mobile technology. Which explains why the largest increases in autism in recent years are among Hispanic and black children (CDC, Prevalence of Autism Spectrum Disorders, 2012 (<http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6103a1.htm>)).

Hispanic and black children lived in the same cities and received the same immunizations as Caucasian children, but they did not see an autism spike until almost a decade later, when their fathers began carrying cell phones at a higher rate.

Over the last 20 years, **patterns of autism increase have been predictable by income level and device cost.** In the first wave, the affluent can afford cell phones at a high rate and see autism spike. In the second wave, the poor can afford cell phones at a high rate and see autism spike.

Regardless of race, the poor carry cell phones at a lesser rate than the rich. This is why rich U.S. states have higher levels of autism. In 2007, the top 5 states by income were: Maryland, Alaska, New Jersey, Connecticut, and Massachusetts (2007, per Wikipedia) ([http://en.wikipedia.org/wiki/List\\_of\\_U.S.\\_states\\_by\\_income](http://en.wikipedia.org/wiki/List_of_U.S._states_by_income)). Their respective per capita autism rankings, out of the 50 states, were: 2, 32, 4, 6 and 9 (Public Schools State Rankings, 2007) (<http://www.state.hi.us/auditor/Reports/2009/09-09.pdf>).

On the other hand, the bottom 5 states by income in 2007 were: Oklahoma, South Carolina, New Mexico, Louisiana, and Tennessee. Their respective per capita autism rankings, out of the 50 states, were: 35, 40, 50, 48, and 42.

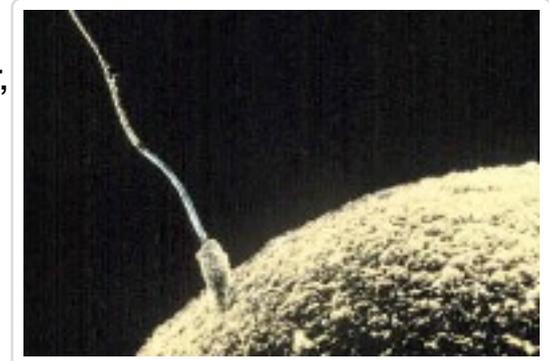
Rich states had an average position of 11 (high autism per capita), and poor states an average of 43 (low autism per capita). If Alaska is removed as an outlier because of lack of cell towers, the rich state average increases to 5.

"Poor" states historically had lower autism rates. Keep in mind that poor states are generally *more industrially polluted* than rich states. Toxic chemical manufacturers around the country can rejoice: all their toxic chemicals the poor are breathing and drinking are *not* the primary driver of our autism spike.

The relationship is simple: carrying a cell phone costs money, so the poor carry them at a lesser rate than the rich. Our 20-year global autism spike is associated with men being able to afford the luxury of radiation in their front pockets.

## Why Women's Eggs are More Protected

Many women carry their cell phones in their purses, keeping them at a safe distance from their eggs. Moreover, even when women carry their cell phones in their pockets, their reproductive cells are located behind dense tissue. Plus, women's eggs are much higher up in their bodies, safely away from the RF energy. In contrast, men's testicles are often only a few inches away from mobile phones, behind only a thin layer of skin.



## Eggs Still at Risk

New research (<https://www.uth.edu/media/story.htm?id=ef956e31-9815-42e7-a555-9a07959ce415>) from the University of Texas confirms exactly what we'd expect: professions in which fathers are "on call" and constantly carry cell phones have adversely high rates of autism:

Fathers who worked in engineering were two times as likely to have a child with an autism spectrum disorder (ASD). Those who worked in finance were four times more likely and those who worked in health care occupations were six times more likely to have a child on the autism spectrum.

There was no association with a mother's occupation. However, children who had both parents in technical fields were at a higher risk of having a more severe form of autism.

This is easy to understand: fathers who carry a cell phone in their front pocket the most have the most autistic children.

The last sentence in the blockquote is particularly worrisome; that women in technical fields give birth to children with a severe form of autism. This suggests that women's eggs *are also receiving low-dose radiation damage*. This is bad because, unlike sperm, women can't produce new eggs; what's damaged is damaged.

If women's eggs are indeed being radiation-damaged, a large concern is young girls who are now carrying cell phones, or streaming video in the back seats of cars, etc. These girls are frequently holding the radiation-emitting devices close to their bellies, thus damaging their eggs in their girlhood. Damage to girl's eggs will also be worse than to women's because girl's girth is less, so their eggs are coming closer to the radiation. Plus, girls will have multiple decades of radiation damage by the time they are having their children. Twenty years from now, when these girls go to have children, they may have a very high prevalence of conceiving autistic children.

## Male Infertility

Of particular note across the cell phone/sperm studies is that cell phones are causing male infertility. Indeed, male infertility has been on the rise over the last 20 years. A study of over 26,600 men in France revealed a 32.2% decrease in semen concentration from 1989 to 2005. Moreover, there was a **33.4% decrease in normally formed sperm** over the same period. (Le Moal J et al 2012)

(<http://humrep.oxfordjournals.org/content/early/2012/12/02/humrep.des415.abstract>)

Conception is far less likely to happen if sperm is fragmented. Male infertility is natural selection in action—selecting *against* autism. But life is very resilient and, in many cases, will go with what's given. Which in the case of fragmented sperm means a baby with only a single healthy copy of chromosomes—from the mother. **Our autism spike is strong genes from mothers—mixed with incomplete DNA from fathers.** The result is a baby with genes that are probably *stronger* than average, for the reason that those genes fought against all odds to be conceived. But tragically and ironically, those great genes appear weak because they are denied a complete set of DNA from the father.

In a sense, human biology has provided an amazing safeguard against autism. We perceive that autism has spiked to a shocking level, but the reality is that male infertility has prevented vast numbers of autistic babies. Male infertility has protected our society from an epidemic that would have over-run our resources.

Men who are having problems with infertility should not fight natural selection. Instead of turning to fertility drugs, a man should keep his mobile phone away from his reproductive cells. When his sperm becomes healthy in a natural manner, nature is likely to favor a conception.

## Language and Communication

In the case of our 20-year autism spike, autism is a word being used to describe cases where fragmented sperm cells successfully fertilize eggs and make babies.

A primary reason that autism has been so elusive to geneticists is because of the way men's sperm cells are being fragmented. Men's sperm cells are being randomly "zapped" by microwave radiation, thus they are affected in a wide spectrum of unhealthy ways. This is why over 100 genes



(<http://www.npr.org/blogs/health/2014/10/29/359818102/scientists-implicate-more-than-100-genes-in-causing-autism>) are causing autism and **why autism is frequently seen as a "spectrum" disorder.**

As you might imagine, sperm DNA can be fragmented in many different ways. Sometimes, it may be a slight fragmentation, barely noticeable as baby grows. In others, fragmentation may be so complete that baby never masters language at all. In most cases, the fragmentation level is average, where there are noticeable gaps in development but baby is still functional in many ways.

The key thing to remember is that each time a fragmented sperm cell goes on to fertilize an egg, it is a unique fragmentation. That is why geneticists will never be able to "decode" or "solve" autism. Each case of autism is too unique.

The reason that language and communication are primarily affected by fragmented sperm cells is because the evolution of language and communication was the most recent—and most complex—part of human evolution. Language and communication require a complex interaction of many genes to be successful.

Even a small fragmentation of the precious DNA code stored in a sperm cell is enough to disrupt a baby's ability to call upon the vital genes. It would be like asking a computer motherboard to correctly operate, but without certain chip subsystems.

## **Cell Phones Still Generally Safe**

Mobile phones are generally safe. WhyAutismHappens is not attacking mobile phones. The association being made is that when mobile phones are held or stored very close to men's reproductive cells, the result is reproductive DNA fragmentation. People with common sense agree: babies are healthier when the starting point is healthy, non-fragmented DNA from each parent.

Although low-dose radiation causes DNA abnormalities (cancerous cells), those cancerous cells die through their own malfunctioning, or are killed by the healthy cells in the immune system. Thus if a heart cell, or hand cell, or hip cell sustains DNA damage from radiation, the human as a whole is generally fine, as those cancerous cells are killed off by millions of healthy cells.

But if someone's reproductive cells sustain DNA damage from radiation, this is a very different story. They may contribute a damaged reproductive cell, so a zygote *forms* with DNA damage, and divides that way, such that *every cell* in the baby's body comes to contain the DNA mutations. This is why autism tracks closely with small physical abnormalities; it's not just the brain that's affected, it's the entire DNA code; every cell.

What WhyAutismHappens is saying is that the damage caused to men's reproductive cells from constant low-dose radiation (cell phones in pockets) is what's causing fathers to pass 80% of mutations leading to ASD. Remember, women's eggs only get 1/16 the radiation because of where their ovaries sit. Carrying cell phones in pockets presents an asymmetric, genotoxic radiation exposure between the sexes, and it's driving our worldwide autism spike.

But there is no reason to fear, or stop using, your cell phone. On the other hand, there is an immediate reason for young and middle-aged men to start carrying and storing their mobile phones differently. The problem is not cell phones; it's the way men are carrying cell phones. Men must start taking responsibility for their actions.

**IMPORTANT NOTE:** Cells phones, cell phone manufacturers, cell phone providers, cell phone service providers, and cell phone users are NOT being attacked with this health data. WhyAutismHappens uses, supports and likes cell phones. The way men carry their cell phones immediately next to their delicate reproductive cells is being linked to autism, and the practical solution of men using the "30 day no front pockets rule" is being recommended for couples who wish to increase their chances of having healthy children. This health announcement represents business opportunity for textile manufacturers to present men with safe, stylish options for carrying cell phones.

## **The Common Sense Factor**

We have a long list of no-no's for pregnant women during their first trimester. They are warned against smoking. They are warned against drinking. They are warned against using drugs, including prescription drugs. They are warned against getting x-rays. They are warned about getting enough folic acid. They are warned to stay away from peeling paint and any renovation work. They are warned against taking herbal remedies. They are warned to avoid insecticides, weed killers, and fertilizers. They are warned to stay away from paints, varnish, shellac, turpentine, and paint strippers. They are warned to avoid electric blankets, saunas, whirlpools, hot tubs, and steam rooms. They are encouraged not to consume caffeine. They are warned, in general, to avoid all medicines except acetaminophen. They are even warned to stay away from cat litter boxes. Any of these inputs is considered a developmental hazard for unborn babies.



Women have a litany of precautions. Why is it ok for men to microwave their reproductive cells just before they fertilize the egg?

The answer: it's *not* ok.

We just think it's ok because it's what we've always done. We literally don't even think of it. It's as simple as that. And it's why, according to parent survey, 1 in 50 children (<http://www.cdc.gov/nchs/data/nhsr/nhsr065.pdf>) is now being diagnosed with autism.

## **What Can We Do?**

Quite simply, men should begin carrying cell phones at least as far away from their reproductive cells as women do (8 inches). In the long run, textile manufacturers will produce pant cuffs and shoes that allow easy-carry pockets at safe distances from reproductive DNA.

The steep rise in autism represents a public health and financial crisis. At our current rate of new autism diagnoses, families will need more help than the government can afford to give. The immediate solution is to issue a public health advisory to educate people on how

to protect their reproductive cells from RF energy.

Additionally, more research needs to be funded and conducted as soon as possible.

Specifically: 1) Research on the rate of autism inheritance from the maternal and paternal sides before 1990, when mobile phone use was uncommon. 2) Research on the rate of autism inheritance from the maternal and paternal side in cultures where mobile phones are not currently used.

## **Reducing Autism by Over 36,000 Cases a Year**

Prior to 1995, there was no spike in autism. Since 1995, autism has spiked uncontrollably. Pesticides, plastics, phthalates, etc were around decades before autism's spike. The noticeable difference is that fathers are passing 80% of mutations leading to autism. This negative change in men's reproductive DNA drives the delta between the autism rate before 1995, and today's autism rate.

Because of natural selection (i.e. sperm competition), it is probable that, prior to 1995, fathers contributed *significantly less* to autism than mothers. Since only 20% of today's mutations causing autism are from mothers, we thus estimate between 60% and 80% of today's autism spike is caused specifically by *radiation-damaged* reproductive cells from fathers.

Although more research is needed, it is very likely that total cell phone causation is closer to 80% of the autism spike for two reasons. First, sperm competition historically prevented high levels of DNA glitches from father to offspring. Second, some single-digit percentage of autism is probably being caused by RF energy damage to women's eggs, and this causes an unnaturally high frame of reference for our calculations today. Many females who held cell phones at approximately the level of their ovaries to send text messages for the last decade are now bearing children.

We estimate the pre-1995 autism rate at 5.5 children per 1,000 based on the earliest reliable parent-reported autism rate, covering children born in 1999 and before (Schieve et al 2006) (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5517a3.htm>). As the autism spike was already in swing by 1999, this is a conservative estimate of the actual pre-1995 rate.

We estimate the current autism rate at 1 child per 50 based on the 2011-12 parent-reported autism rate (Blumberg et al 2013)

(<http://www.cdc.gov/nchs/data/nhsr/nhsr065.pdf>). As the autism rate has likely increased beyond the rate of this 2012 data, this is a conservative estimate of today's actual rate.

From our estimates, we calculate autism has increased by a factor of 3.64 since 1995. This estimate is supported by research that shows a four-fold increase in autism between 1997 and 2008 (Boyle et al 2011)

(<http://pediatrics.aappublications.org/content/early/2011/05/19/peds.2010-2989.full.pdf+html>).

The pre-1995 autism rate should be considered the "natural autism rate", and would include autism by exposures to pesticides, phthalates, immunizations, etc. The delta increase in autism since 1995 should be considered the "autism spike". The logical cause

of this spike is a sharp rise in de novo mutations, 80% driven by fathers, that increase risk of autism in offspring by up to 20 times (Neale et al 2012) (<http://www.nature.com/nature/journal/v485/n7397/full/nature11011.html>).

There were 3,957,577 births in the United States in 2013 (Hamilton et al 2013) ([http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63\\_02.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63_02.pdf)). At the current parent-reported autism rate of one in 50 school-aged children (Blumberg et al 2013) (<http://www.cdc.gov/nchs/data/nhsr/nhsr065.pdf>), we can say there will be 63,000 new cases of U.S. autism each year.

Using our 3.64 multiplier, we can say that of the 63,000 new annual autism cases, 17,300 cases are "natural autism", and the other 45,700 are part of the autism spike.

Out of the autism spike (45,700 per year), we estimate between 60% and 90% is being caused by radiation-damaged reproductive cells. That translates to between 27,420 and 41,130 new autism cases per year. It is very likely in the 80% to 90% range because: we have used conservative estimates, of disappearing healthy sperm and sperm competition, and because some single digit mutation percentage is likely from damaged eggs. A 90% upper limit translates to 65% of *all autism* (41,130/63,000).

A probable estimate is that 80% of our autism spike is from radiation-damaged reproductive cells. **Autism in the U.S. should reduce by over 36,000 cases a year** after fathers begin protecting their reproductive cells from radiation.

### **Special Note to the Autistic Community**

This website is not intended to insult you. WhyAutismHappens is *only* talking about ~73% of today's autism; aka the autism *spike*. Your autism may not have been caused by RF energy exposure. Furthermore, you may have found that your autism is an advantage to you in your life.

WhyAutismHappens does not have answers as to why autism happens naturally. However, protecting against unnecessary DNA fragmentation as a starting point for babies should be a positive shared goal.



### **Summary**

In summary, we are saying, "Fathers, don't put radiation right next to the ingredients you're making a baby with." If we make this change, we can reduce autism spectrum disorders by about 60%. This could make a difference in your family.

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