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The Forgotten Dangers of Ultrasound

Analysis by A Midwestern Doctor | January 31, 2025

STORY AT-A-GLANCE

- The medical field has historically exposed mothers to harmful treatments for infants. After efforts to stop routine fetal X-rays, prenatal ultrasound (US) was introduced as a "safe" alternative
- While ultrasound is considered safe, a century of forgotten research shows it can harm tissues
- Evidence shows early fetuses are especially vulnerable to ultrasound, with trials in China that gave ultrasound before abortions revealing clear damage to fetal tissues
- US harms are dose-dependent. In 1992, despite safety concerns, the FDA raised permissible US levels 8-fold, which may have contributed to the rise of chronic childhood illnesses
- The benefits of prenatal US are often exaggerated, leading to unnecessary treatments that harm both mothers and infants

The earlier in life an input enters a human being's system, the more of a profound impact it has. For example, abuse, neglect, or trauma early in childhood often pattern individuals for their entire lives (and in many cases their descendants as well).[1]

Similarly, it's well recognized that toxin exposure during pregnancy (especially in the first two months of life[2]) can create lifelong issues. Sadly, this principle is frequently neglected when convenient (e.g., by pushing the COVID-19 vaccine on pregnant mothers).

‘Safe and Effective’

One of the core beliefs medical students are taught from the very start is that vaccines are “safe and effective.” As such, they become unable to see the obvious dangers of vaccines (e.g., **the century of evidence linking vaccines to “unexplained” sudden infant deaths** — which coincidentally occur at the same time the early childhood vaccines are given).

A similar situation with ultrasound exists, as all doctors are taught that, unlike other imaging modalities, ultrasound is completely harmless. Rather, ultrasound’s only downside is that the image quality is operator dependent — even though **many medical devices use high-powered ultrasound to destroy human tissues**.

In truth, like vaccines, initially the medical profession was quite skeptical of ultrasound (as there was a great deal of evidence suggesting harm). However, as the decades passed and its ever increasing use was normalized, those concerns were forgotten entirely. For example, in 1983, CNN aired a program on the dangers of ultrasound (where the FDA acknowledged these dangers) almost no one knows about.

Video Link

The Medicalization of Childbirth

Initially, doctors had no interest in childbirth. However, this changed in 1820 after a prestigious Harvard Doctor pointed out it could create lifelong customers due to the mother's gratitude towards their doctor for helping her at her most vulnerable time.[3]

In turn, a variety of ploys were used to turn what had been a natural process into a medical intervention requiring a costly array of (often harmful) medical interventions.

Note: *Despite those interventions making America by far the most expensive place to give birth to a child[4] (besides Japan), 0.56% of American infants do not survive childbirth[5] (the*

highest death rate amongst the affluent nations[6]) and the US ranks 65th in its maternal death rate.[7] This indicates America's approach to birth may be misguided.

After the idea of X-raying a fetus throughout pregnancy was proposed in 1923, it was quickly taken up by the medical profession.[8] Before long, evidence accumulated that this was very dangerous, but it was not until 1975 that the obstetric field shifted away from it — a shift that largely occurred because an alternative way was found to conduct those routine exams.

Fortunately, at the time, many doctors, including one of the leading reformers of the era, Robert S. Mendelsohn, were aware of the dozens of studies showing ultrasound was not safe and recognized the same mistake was being repeated:

Video Link

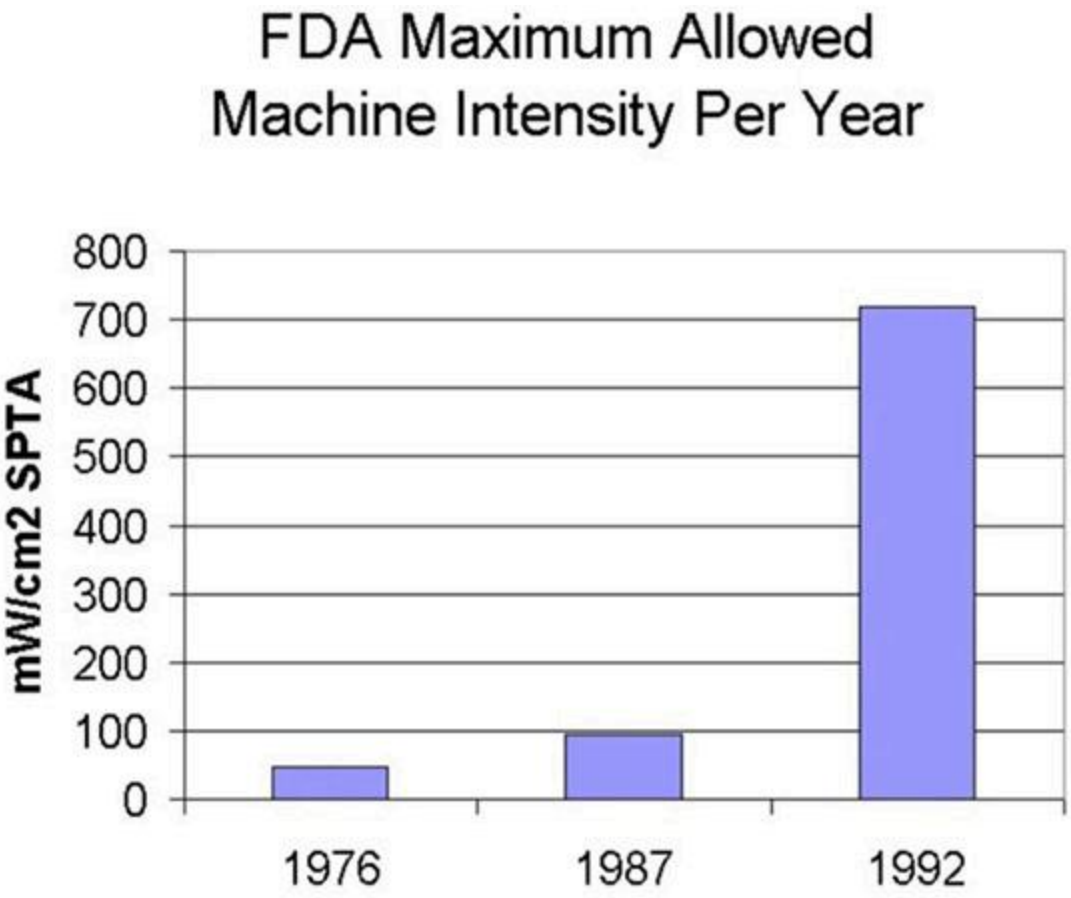
Note: *The developing fetus is very sensitive to external energy inputs (e.g., studies* ***have linked prenatal EMF exposure to obesity, neurological impairment and autism****).*

'Safe' Levels of Ultrasound

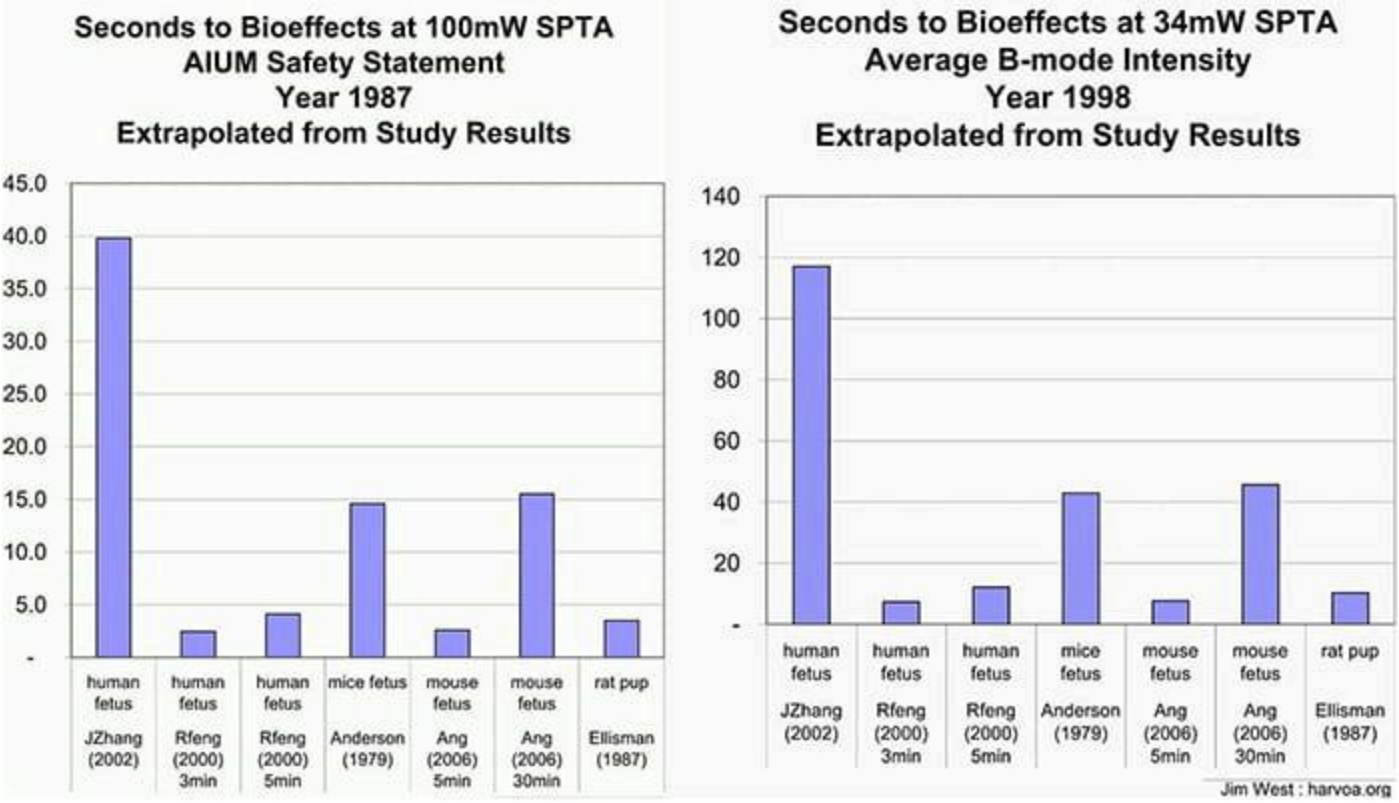
Almost all of the ultrasound research showed its toxicity was dose-dependent. By the late 1970s, leading ultrasound researchers were explicitly warning against giving US to fetuses and that it was imperative to be very cautious of the dose.

Note: *Much of this was based on the recognition that ultrasound could heat tissues (especially those close to dense bones like the brain) to levels known to be harmful to fetuses. This heating (along with the cavitation bubbles and mechanical stress ultrasound causes) is thought to be the primary mechanism of harm, although other explanations have also been proposed (e.g., ultrasound permanently muting many of the core frequencies of the body[9]).*

Unfortunately, as the technology evolved, higher doses were needed to get the higher quality images customers wanted, so in 1992, the FDA made the controversial decision to raise the permitted ultrasound limits massively.

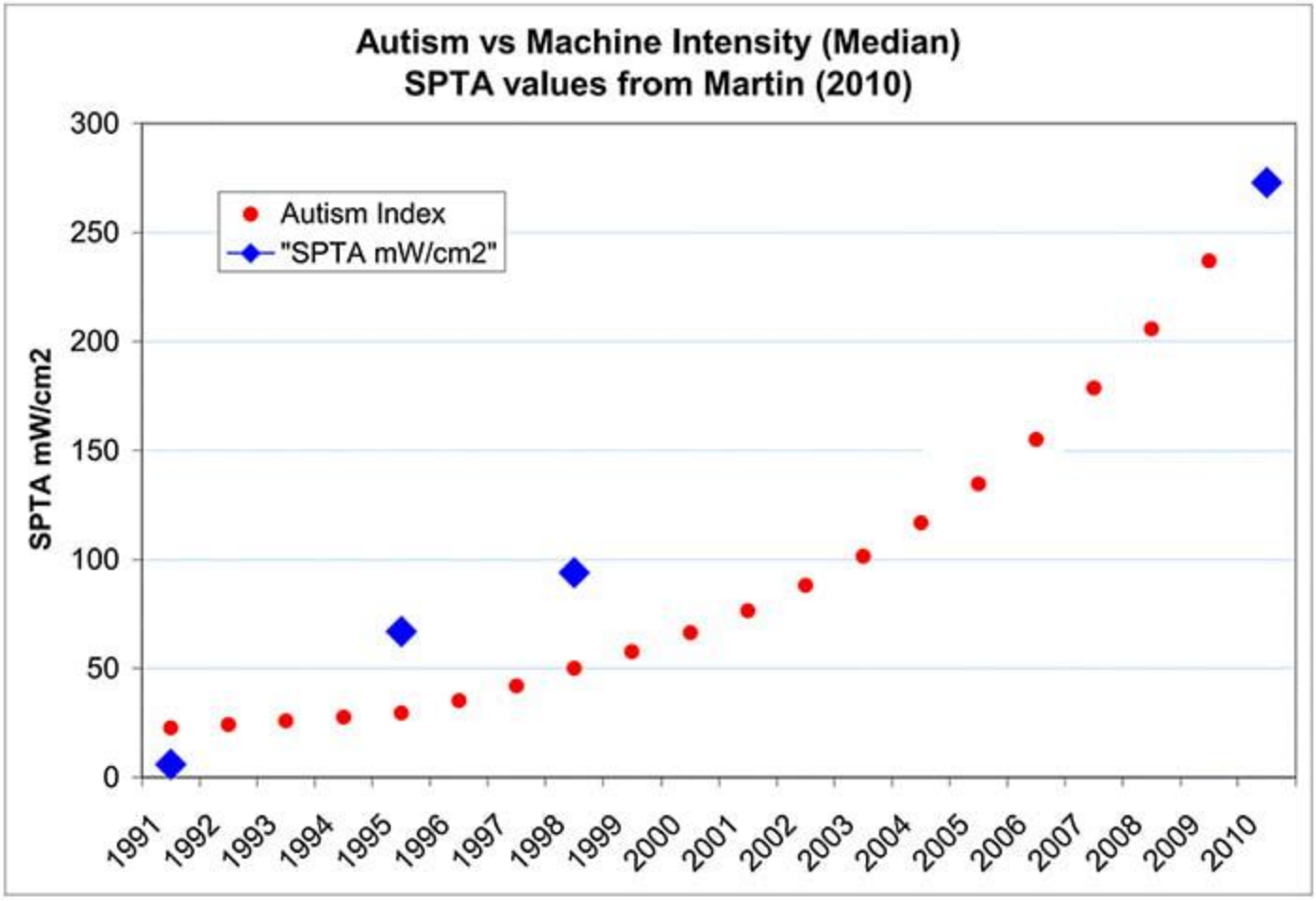


This limit (720 mW/cm^2), however this vastly exceeded the standard accepted ultrasound dose[10] which had already been demonstrated to damage tissues (and sadly, due to poor FDA oversight, **many machines often use far higher intensities**).



At the time, the change was justified by better training in ultrasound operators being a viable way to prevent fetal damage, but unfortunately, this never happened. Rather, ultrasound became declared “safe and effective,” the existing research was forgotten, **funding for future safety research was blocked**, medical guidelines gradually eliminated their cautions on ultrasound, and ultrasound operators lost almost any awareness they needed to be concerned about fetal safety.

Most importantly, this 1992 change coincided with the explosion of chronic illnesses that emerged in our children.[11]



While the proliferation of vaccines is the most likely explanation for this epidemic, one study found[12] ultrasound increased the risk of autism in genetically susceptible children, suggesting ultrasound may have served a contributing role (which may relate[13] to its ability to potentiate the cytotoxicity of antibiotics and other pharmaceutical drugs).

Likewise, many others found[14] prenatal ultrasound significantly reduced fetal growth, impaired neuronal migration, and in children, increased:

Dyslexia	Delayed speech	Left-handedness
Schizophrenia	Poor academic and physical education performance	Passivity and tiredness

Note: *We also periodically come across cases of parents who used home ultrasound throughout their pregnancy to observe their developing child (e.g., Tom Cruise attracted*

national controversy for this[15]) and noticed that their babies tended to be smaller and more sickly.

Fetal Reactivity

One of the first things that made me suspicious of ultrasound was noticing that once ultrasound was applied, fetuses would react to it, and often seem as though they were trying to get away from it as the probe was directed towards them — which suggested, contrary to what we were told, ultrasound was not inert. After some digging, I discovered:

- Most midwives (and a few physicians) I'd spoken to had made similar observations and also hence questioned its safety.
- Scientific research showed that ultrasound caused increased fetal movement.[16]
- A hydrophone inside the uterus[17] determined that ultrasound registers at 100 to 120[18] decibels there (which is equivalent to a subway entering a train station[19]) — whereas OSHA limits workplace ultrasound exposure to between 105 to 115 decibels.[20]

Fetal Demise

Another pivotal moment came when I saw a despondent mother in the emergency room having a miscarriage who kept saying, "I don't understand what happened. We saw our gynecologist earlier today, she looked at my baby, and said he was in great health." As I looked into this, I began to find many similar reports like this one (which includes many other instances she came across):

Video Link

Likewise, numerous large studies have shown ultrasound can cause miscarriages or premature labor,[21,22,23,24] and since I began this series, **many readers have shared similar tragic experiences**.

Evidence of Harm

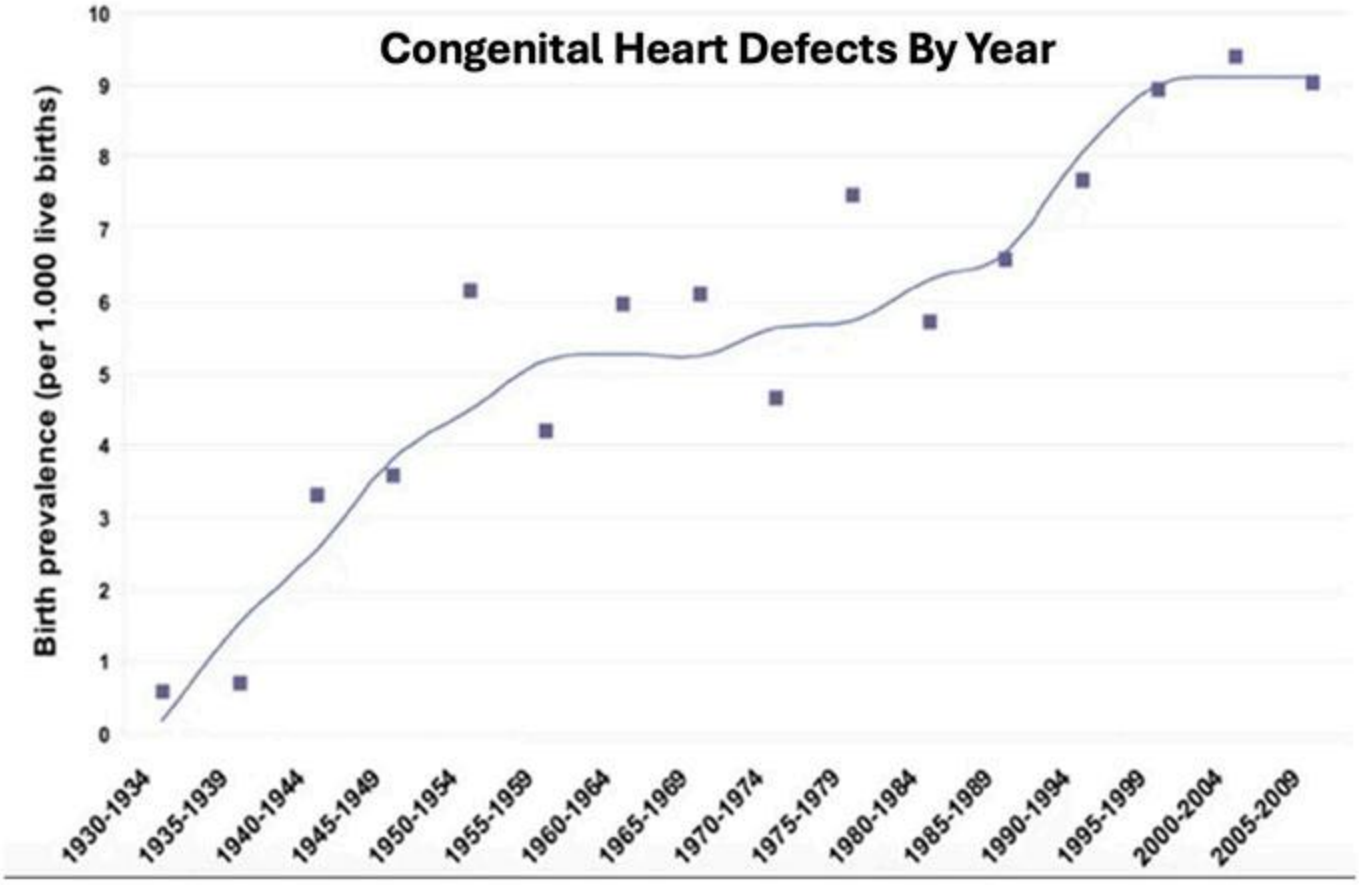
Over the last century, hundreds of studies have demonstrated the dangers of ultrasound, over 200 of which I summarized here. Collectively they all show dose-dependent biological damage occurs (at levels that were frequently less than 1% of the FDA's 720 mW/cm^2 limit). In cell studies, ultrasound has been repeatedly observed to:

Cause genetic damage similar to that induced by X-rays	Make susceptible cells become cancerous
Damage cellular structures (e.g., microtubules, mitochondria, the nucleus, and the endoplasmic reticulum)	Create damaging free radicals
Create abnormal cell motility	Initiate cell death

In animal studies, ultrasound has been shown to:

Cause the same damage observed in those cellular studies	Significantly impair mice and monkey behaviors (e.g., learning, memory, activity, and sociability)
Impair cardiac function	Inhibit embryonic growth or kill developing embryos
Damage nerves and create motor paralysis	Decrease white blood cell counts
Cause hemorrhages in the lungs and bones	Create a wide range of congenital malformations (e.g., in the heart, head, and spine)

Note: *Many of these defects, particularly those of the heart increased in tandem with the widespread adoption of ultrasound.*



For ethical reasons, similar studies cannot be conducted in humans. However, in the early 1980s, dozens of studies (e.g., I summarized 41 of them here) were conducted in China on pregnant women immediately prior to abortion, with half of them receiving abortions and the fetuses then being dissected (some of which can be found in PubMed). Collectively, they observed similar damage in each organ that was examined and that ultrasound caused:

> The cell death process to initiate — something many Chinese investigators found extremely concerning given that small changes in the initial embryonic cells can be immensely consequential for the rest of life

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> An increase of the proteins associated with cell death

> Mutagenic changes and cancerous transformations

> DNA damage

Increased levels of malondialdehyde (a highly reactive molecule), TNF-α, and lipid peroxidation (a sign of oxidative damage)
Decreased activity of many antioxidant enzymes and nitric oxide
Cellular damage (e.g., swelling, degeneration, disintegration, disorganization, karyolysis, and necrosis)
Damage to many cellular structures (e.g., pyknosis, rarefaction, vacuolization, disintegration), particularly within the mitochondria
Depleted glycogen levels

Additionally, they found specific damage to the placenta, pituitary gland, eyes, immune system, kidneys, liver, ovaries, testicles (and sperm), and the brain's neurons and glial cells.

Note: *Ultrasound has been extensively explored as a male birth control method*[25] *and has been found to induce premature ovulation.*[26] *Additionally, a large 2012 study found that 1.25% of children who had an ultrasound as a fetus had urologic disorders (e.g., a urinary obstruction), whereas in those who did not get a prenatal ultrasound, only 0.66% did.*[27]

A few large randomized control trials (RCTs) published in premier medical journals have also demonstrated dangers with ultrasound:

- A 1990 RCT[28] gave 4691 women ultrasound. They experienced 20 miscarriages and 11 elective abortions (due to diagnosed birth defects), whereas zero of either occurred in the control group. Additionally, it was determined that of the 250 placenta previas diagnosed by ultrasound (a key reason for prenatal ultrasounds), only 4 were present at birth.

  Note: *Placenta previa typically resolves later in the pregnancy.*

- A 1990 RCT compared 57 patients being surveilled for preterm labor who received weekly pelvic exams or cervical ultrasound. Premature labor occurred in 52% of

those receiving US, and 25% of those receiving pelvic exams. Those receiving US were more likely to receive tocolytic (labor inducing) agents (55% vs. 21%) and did not see any benefits from ultrasound.[29]

- A 1992 RCT published gave regular Doppler examinations (a stronger form of ultrasound) to 1,246 women.[30] Compared to controls, the perinatal death rate increased 2.4 times, the total pregnancy loss by 1.67 times, the emergency C-section rate by 17%, and the need for resuscitations at birth by 6% (along with a significant decrease in Apgar scores).

- A 1993 RCT gave 1,415 women regular Doppler examinations. Compared to those who only received standard ultrasound, they were 35% more likely to have an intrauterine growth restriction and 65% more likely to have a low birth weight.[31]

Sadly, rather than changing the standard of care, each of these were ignored.

Is Ultrasound Effective?

Numerous studies show ultrasound provides minimal overall benefit, especially if used early in pregnancy when the fetus is most vulnerable to its damaging effect. For example:

- A 2010 Cochrane review (the gold standard for evaluating medical evidence) of 11 trials comprising 37,505 women found early pregnancy ultrasound provided minimal benefit (there were no reductions in adverse outcomes for babies or in health service use by mothers and babies).[32]

- A 2005 RCT of 4,187 pregnant women found that umbilical Doppler monitoring led to a significant increase in the number of ultrasonographic and Doppler examinations but had no effects on the outcome of the pregnancy.[33]

- A 1993 meta-analysis found no improvement in birth outcomes or perinatal mortality from ultrasound, but noted it incorrectly diagnosed fetal malformations.[34]

- A 1993 RCT[35] of 15,151 low-risk pregnancies found that routine ultrasound provided no benefit.

Note: *Another use of ultrasound is to monitor a fetus's heart rate continually through the labor process. Unfortunately, there is no evidence this practice improves neonatal outcomes. Rather it just increases the rate of C-sections (e.g., in 1970 when it began, 5.5% of deliveries were C-sections,[36] while in 2023, 32.3% of them were[37]).*

This lack of efficacy is largely because the primary "benefit" of ultrasound is that it can inform the parents if the baby has a severe defect and hence should be aborted. This is problematic as:

- Many parents would not agree to prenatal ultrasounds if they knew it would force them to make that choice.

- Ultrasounds frequently have ambiguous results which then require extensive evaluations throughout the pregnancy (or invasive tests like amniocentesis and chorionic villus sampling which carry many severe risks including birth defects, a 0.5% to 1% chance of causing miscarriages,[38] and decreasing the likelihood of a successful pregnancy by 4.6%[39]).

  Most frequently, that ambiguity creates significant anxiety, depression, and hostility for the mother[40] (which is not good for the infant).

- Parents who abort "defective" children are wracked with guilt over the choice for years, whereas they quickly find peace with miscarriages (a common outcome for non-viable pregnancies) and stillbirths.

- Studies have shown a significant number of "defects" were erroneous diagnoses, and **many well-publicized stories exist** of completely healthy babies being born whose parents had been repeatedly pressured to abort them (likewise this happened to a few friends of mine).

Many of the other benefits of ultrasound are either unnecessary (e.g., getting a picture of their face), **possible to determine with other methods** (e.g., their age, if there are

twins, or if they have a genetic defect), or possible to determine around the time of labor (e.g., if a C-section is necessary).

Rather, the primary benefit is to inform you if the baby has a high-risk condition that requires intrauterine surgery (which applies to roughly 1 in 2000 pregnancies)[41] or requires specialized surgical care immediately following childbirth (which can typically be determined with a physical examination).

Note: *A 1997 study of 36 children with congenital defects only detected 19% to 36% of them. In those whose defects were detected (and the management of their labor was thus altered), 77% survived, whereas for those whose defects were missed, 96% survived (and had better Apgar scores and birth weights and spent less time on the ventilator). Additionally, while it took 3 times as long for those who needed surgeries to get one, no difference in mortality resulted.*[42]

As such, I believe rather than being routine, prenatal ultrasounds should only be done when there is a specific medical necessity for them (e.g., in high-risk pregnancies where the results of the scan would change its management following unexplained bleeding or to clarify uncertainties during labor), and that when done, care should be taken to minimize fetal ultrasound exposure.

Conclusion

For medical specialties to be financially viable, they need to routinely perform profitable procedures on the patients they see (which are often referred to as the specialty's "bread and butter" and are funded as a result of aggressive lobbying by the American Medical Association).[43]

Unfortunately, many of these procedures provide minimal value to the patients and, in many cases, are actually harmful (e.g., pediatricians depend upon vaccine sales to keep their practices afloat). Sadder still, in many cases, the doctors don't even understand the evidence for or against the practice (e.g., I've found this is the case for pediatricians who routinely perform circumcisions).

In my eyes, one of the greatest upsides to the tragedy of COVID-19 is that it's made it possible to expose the abhorrent tactics the medical industry has used for decades to exploit us for profit. As such, the public is beginning to question many of the longstanding medical practices they've reflexively trusted, and similarly, leaders like RFK Jr. have begun proposing removing the AMA's ability to set the exorbitant reimbursement rates for medical procedures.[44]

As children are both the most vulnerable to medical injury and cannot speak out for themselves when these injuries occur (although as any judicious observer can tell you — they do try to tell us), it is my sincere hope the new era we are walking into will at last allow us to protect them from these predatory medical practices. Our children are our future and it is vital that we protect them.

Author's note: *This is an abridged version of* ***a longer article*** *that goes into much greater detail on the data mention here, safe alternatives to ultrasound, effective strategies we've found for preventing miscarriages and having a happy, healthy and alert child, and methods to prevent common complications of pregnancy (e.g., back pain, preeclampsia, edema). That article and its additional references can be read* ***here****.*

A Note from Dr. Mercola About the Author

A Midwestern Doctor (AMD) is a board-certified physician from the Midwest and a longtime reader of Mercola.com. I appreciate AMD's exceptional insight on a wide range of topics and am grateful to share it. I also respect AMD's desire to remain anonymous since AMD is still on the front lines treating patients. To find more of AMD's work, be sure to check out **The Forgotten Side of Medicine** on Substack or **follow AMD on Twitter (𝕏)**.

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