

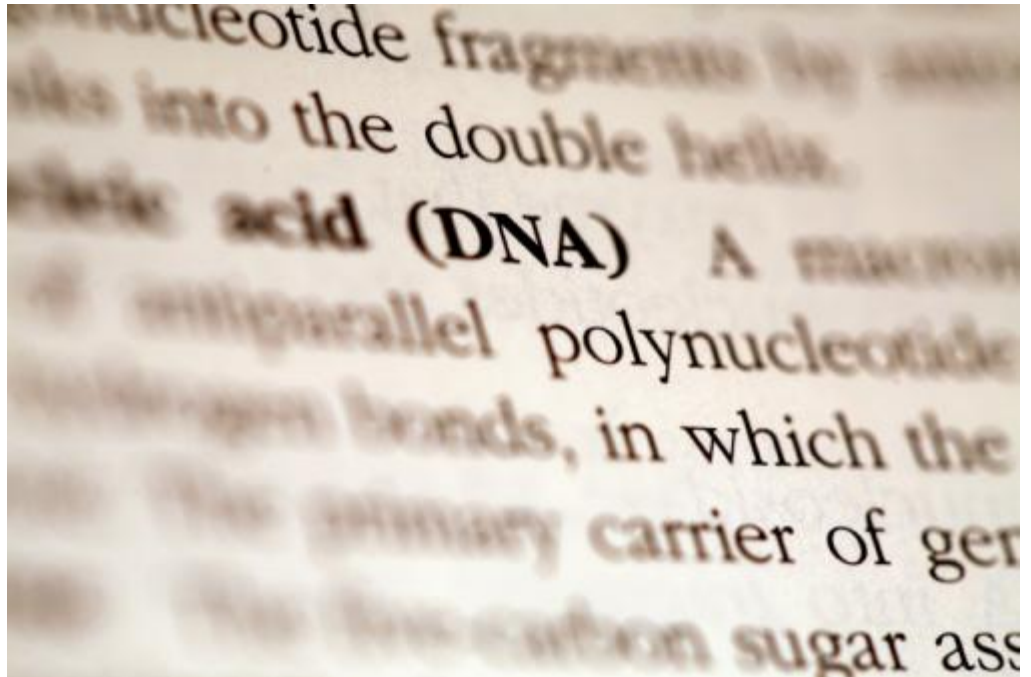
Why Your DNA Isn't Your Destiny

Posted by: [Dr. Mercola](#)

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You have had a long-standing deal with biology: whatever choices you make during your life might ruin your short-term memory or make you gain weight or could hasten death, but they won't change your genes — your actual DNA.

The answer lies beyond both nature and nurture. Bygren's data — along with those of many other scientists working separately over the past 20 years — have given birth to a new science called epigenetics.



At its most basic, epigenetics is the study of changes in gene activity that do not involve alterations to the genetic code but still get passed down to at least one successive generation.

These patterns of gene expression are governed by the cellular material — the epigenome — that sits on top of the genome, just outside it (hence the prefix *epi-*, which means above). It is these epigenetic "marks" that tell your genes to switch on or off, to speak loudly or whisper. It is through epigenetic marks that environmental factors like diet, stress and prenatal nutrition can make an imprint on genes that is passed from one generation to the next.

But the potential is staggering. For decades, we have stumbled around massive Darwinian roadblocks. DNA, we thought, was an ironclad code that we and our children and their children had to live by. Now we can imagine a world in which we can tinker with DNA, bend it to our will.

It will take geneticists and ethicists many years to work out all the implications, but be assured: the age of epigenetics has arrived.

Sources:

» [Time Magazine January 6, 2010](#)

» [Quarterly Review of Biology 2009](#)

» [ALSPAC](#)

Dr. Mercola's Comments:

Epigenetics is probably the most important biological discovery since DNA. And it is turning the biological sciences upside down.

Now that we realize our fate is not sealed at the twining of our double helix, we avail ourselves to a whole new world of possibilities. There are things we can do to *change our genetics*, and therefore our health.

But beware -- these changes can be good or bad. It works both ways.

You can improve your genetics or you can damage it.

In fact, you ARE changing your genetics daily and perhaps even hourly from [the foods you eat](#), the air you breathe, and even by the thoughts you think.

You are the "caretaker" of your genetic roadmap.

The problem is, once you understand that there's something controlling your genes -- that they don't control themselves but are controlled by epigenetic coding that tells them to be expressed or not expressed -- which is completely controlled by your environment and lifestyle -- it just blows everything out of the water!

For many years we were secure in our beliefs that, no matter what we did to damage ourselves in terms of poor lifestyle choices, it only affected us. Our children would be born with a genetic clean slate.

But now we are learning that this is not true, and epigenetic changes can be passed down for many generations. Each of us has far greater responsibility than we ever imagined!

In the words of Dawson Church, author of [The Genie in Your Genes: Epigenetic Medicine and the New Biology of Intention](#):

"It's not what we don't know that hurts us--it's what we think we know that isn't true that hurts us."

Your Genetics Are Malleable -- Like Clay

Epigenetic "malleability" helps to explain why identical twins become distinct as they age.

Why does one identical twin develop cancer and the other remain healthy when they have identical DNA? Why does one twin become obese and another remain lean?

As you age, your genome does not change *but your epigenome changes dramatically*, especially during critical periods of life, such as adolescence. It is influenced by physical and emotional stresses -- how you respond to everything that happens in your environment, from climate change to childhood abuse.

The secret is in the methyl groups that overlie the DNA molecule, which is the realm of the epigenome.

When a gene is turned off epigenetically, the DNA has usually been "methylated." When methyl groups adhere to a segment of DNA, they inhibit the gene's response. [Methylation-gone-wrong is now suspected in autism, depression, bipolar disorder, and schizophrenia.](#)

You do not manifest disease merely by a defective gene, but by your epigenome. In other words, whether or not you develop disease is determined by how your genome is being directed to express itself. There are also "master genes" that can switch on and off clusters of other genes.

Scientists have discovered it is easier to make epigenetic changes than to fix damaged genes. Your epigenome is easier to mess up -- but it's also easier to fix.

That's good news -- you aren't doomed by bad genes!

Epigenetic therapy, which is essentially the curing of disease by epigenetic manipulation, involves changing the instructions to your cells -- reactivating desirable genes and deactivating undesirable ones. This emerging field, now in its infancy, may represent the future of medicine.

Mind Over Matter

Just as your epigenome controls the expression of disease -- your mind controls your epigenome.

Therefore, your mind controls your healing.

The science of epigenetics is now beginning to explain things like [placebo effect](#) and spontaneous healing, which lacked a scientific basis until now.

Epigenetics literally means "above the genes." And what is above the genes?

Your mind!

One of the scientists on the forefront of mind-body biology is [Bruce Lipton](#). Thanks to Dr. Lipton and other leading voices, the power of your mind is finally gaining the attention it deserves.

Your mind has the power to create or cure disease because your thoughts affect the expression of your genes. Today's "New Biology" is overlapping with consciousness science and quantum physics, and it's showing us that [we have masterful control over our own lives](#).

Energy Medicine and Genetics Converge

You are a being of energy, and as such, you have an electromagnetic component to every biological process. Every thought or feeling produces a complex shift in the biochemical make-up of your organs.

According to Blair Justice, PhD, author of *Who Gets Sick*, genes account for only 35 percent of longevity while diet, exercise, stress and other environmental factors are the major reasons people live longer.

Dawson Church cites the following impressive statistics in his book, [The Genie in Your Genes: Epigenetic Medicine and the New Biology of Intention](#):

- Heart surgery patients who have a strong social support network and spiritual practice have a mortality rate 1/7th of those who do not.
- Studies show that meditating for just 30 minutes per day can boost your mood as much as antidepressants.
- Older people with positive attitudes have a 23 percent lower risk of death from cardiovascular disease and a 55 percent lower risk from all other causes.

Clearly, [your beliefs, thoughts, and intentions have a much stronger affect on your life](#) than your genes do.

Mysteries of Meridian Tapping Technique Finally Revealed?

Energy psychology techniques such as [Meridian Tapping Technique \(MTT\)](#) and acupuncture are powerful therapies that work with your body's own electromagnetic system to produce healing. I have been a huge fan of MTT for many years.

Epigenetics helps explain why MTT works so well.

MTT has a direct affect on your genes *through your body's energy field, on a cellular level*. By altering the signals to your energy meridians, you can directly influence your cells by affecting their genetic expression. In his book, *The Genie in Your Genes*, Church provides a very compelling and convincing model for how energy medicine works.

Would you be interested in a technique that allows you to positively impact your genes all by yourself, in 40 seconds or less?

That would be MTT.

If your genes are so mutable that they can change from moment to moment in response to your thoughts and feelings, then anything you can do to create a positive feeling state can profoundly, and immediately, improve your health.

Has science finally discovered the link between your body's energy field (aka, prana or qi) and disease?

Perhaps!

In order to answer that question, more research is certainly needed into the connections between thought, quantum physics, energy, consciousness theory, and healing.

This area is one of the hottest topics in science today.

Last year, the National Institutes of Health announced it would invest \$190 million to accelerate epigenetic research. The list of illnesses to be studied in the resulting grants reveals the scope of this emerging field: cancer, Alzheimer's disease, autism, bipolar disorder, schizophrenia, asthma, kidney disease, glaucoma, muscular dystrophy and more.

Mind Your Thoughts

Since genetics is now intimately linked to mind and consciousness, the key to healing ultimately lies in controlling your beliefs and emotions.

Bottom line: mind your thoughts!

We've always taught our children the importance of controlling their behavior. But maybe it's time to focus more on teaching them how to control *what they think and feel*, since beliefs and emotions are what trigger the expression of specific DNA.

Behavior will naturally follow.

Even more importantly, what you think and feel may affect the DNA of your children, your grandchildren, and their children.

I can't say it better than Dawson Church:

"The code imprinted in our DNA, the one thing we thought was for certain, is just waiting for direction by us to change, creating a civilization that brings health, happiness, and vibrancy in ways in which the current medical establishment only dreams of."

Related Links:

- » [The Science of Miracles and the Power of Prayer](#)
- » [Pregnant Mom's Diet Can Turn Genes On and Off](#)
- » [Your Genes Remember a Sugar Hit](#)

Reference website: <http://articles.mercola.com/sites/articles/archive/2010/01/23/Why-Your-DNA-Isnt-Your-Destiny.aspx>