

## The Excuse of Genetics

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I cannot count the number of times I have had patients blame their ailments on genetics. "Well, my Dad had a bad back - I must have inherited it from him" or "Everyone in my family is overweight, it's just in my genes." In some ways it has become more of an excuse than a valid reason for their condition. When performing a patient interview, it is important to remember that there is a big difference between genetics and the reality of life. They are not always interchangeable.

As I was thinking about this article, I had to go back to my bookshelf and dig out my copy of *Guyton's Medical Physiology*. I sat down for a good evening read of heredity, deoxyribonucleic acid, purine, pyrimidine, and all manner of other biochemical and physiologic processes. As I read through the material, I was reminded of how incredibly wondrous and complex a creation the human body is. The minutiae of biochemical processes necessary to sustain life is truly amazing. I was also reminded that there is very little margin for error in genetic function. Abnormal activation of cellular genes that control cell growth and mitosis can quickly lead to cancer. Genetics do not program our body for failure.

What does not get discussed in the pages of *Guyton's* is the impact of environment. Genes may dictate our body type, our hair color, and how we respond to our environment, but they do not dictate our environment, and sometimes that is just as significant a factor in our health.

A personal example is my mother's family - most of the women are overweight. It becomes very easy to dismiss this general family trait as simple genetic expression, as it is a uniform problem. But when you look back and realize that my great-grandmother believed the mantra that "a fat baby is a healthy baby," and that my grandmother also lived by this philosophy, the effect of family environment becomes much more apparent. It can certainly be argued that genetics may have contributed, but I would argue that my grandmother's attitude toward food had a lot to do with conditioning her children for a lifetime of obesity, regardless of genetics.

Another example could be the patient who comes in with lower back pain. He blames his bad back on his father, because his dad also has back problems, and has been diagnosed with multiple disc herniations. On further inquiry, you find that the son took over the family farm from dad, and now does many of the chores the same way dad taught him - including lifting and throwing hay bales. Did he inherit genes for a bad low back, or did he just learn bad work habits that caught up with him?

I think the point I am trying to make is pretty clear. Genetics certainly contribute to who we are, but our environment and life experiences can be just as significant. When you consult with a patient, don't let them pass off their complaints on "bad family genes" - instead, dig deeper and look for other factors, such as diet, activities, habits, postures, that could be contributing to their presenting symptoms. Taking the time to root out a full history is not always easy, but most patients will trust you more and respect you if you take the time. This also provides you with valuable insight into what is actually going on.

As always, make sure you take the time to document what was said - that information is part of the clinical record. If you take the time to fully evaluate the patient so that your diagnosis is correct, your treatment will be appropriate, and your patient will thank you for your quality care.

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