

DIABETIC? CREATIONIST? BETTER THINK CAREFULLY.

There is no DNA in the Bible. In fact, the Bible does not mention most of the things we take for granted in the modern world, like cell phones, refrigerators, TV, potato chips and ice cream. Disease was generally seen as God's vengeance on whoever he was angry with at the time. Thus, if you got diabetes, it would have been part of God's plan for you. You would have died soon, in a fairly painful manner. Maybe you would have lived long enough to go blind. Everyone would have told you it is your fault.

Modern science has improved things over the health care plan of the Bible. In the early 20th century, it was discovered that insulin is the missing factor whose absence causes the problems of diabetes (type I). Insulin is a molecule which is essential for metabolism of sugars and starches, which are the basic fuel of the human body. From about 1930 to 1980, diabetics could ward off the effects of an early painful death by taking insulin which came from animals, mostly cows and pigs. Both types worked better than nothing, and as we now know from genetic research, pig insulin is more similar to human insulin than is cow insulin. Both types were close enough to work adequately in the bio-molecular machinery of the human body. Around 1980, scientists discovered how to manufacture real human insulin by extracting human DNA which codes for the insulin molecule, and installing it in bacteria to make insulin that is identical to the insulin produced by the human body.

If you are diabetic now, you can use this synthetic insulin which works better than animal insulin. In fact, now you have access to third and fourth generation insulins with many useful properties which make having diabetes more of an inconvenience than a death threat. You also have access to sterile syringes, the insulin pump and insulin which you can inhale like the little medicine pump that people with asthma and allergies have used for years. You can monitor the level of glucose in your bloodstream so as to keep the level in the normal range, and which helps avoid devastating low blood sugar effects that can put you in a coma or turn you into a lunatic. I've been through all these experiences, and I would say they are not much fun, except maybe for people who really like extreme roller coasters, sky diving and similar thrill rides that simulate a near death experience.

I once met a fellow in New Mexico who had turned diabetic in the Army in 1942. They gave him a bottle of pig insulin and one syringe for injecting it. They also gave him a stone to sharpen the needle of the syringe when it got too blunted to poke through his skin. That was the best they could do at the time, and indeed he was still alive and healthy in the 1990's, so clearly it was better than nothing.

The way that science has made these better treatments for diabetes available is by genetic engineering, which some people call "playing God with DNA." I think this is a good thing for people like me with diabetes. If I was a Jewish or Islamic diabetic in the middle 20th century, I might have been faced with the choice of dying or using insulin taken from slaughtered pigs – an unclean animal in both traditions. Now I have insulin which is made from human DNA, inserted into bacteria who work night and day to crank out copies of the insulin molecule which is exactly what my pancreas would produce if I had a pancreas that worked right, which I apparently don't. I say apparently because the only way to verify the theory that my pancreas doesn't produce insulin is to cut me open, take out some of that organ, and run it through a bunch of lab tests. I'll take the concept on faith for now.

may be finished