

No Pain, No Gain

By Philip R Nicol MD

This old time cliché is usually heard in relation to sports activities. The harder that you train, the better you will become, is the message coaches hope to impart to their athletes. And so it is with diabetes management. It is a fact of diabetic life that good outcomes are directly related to three principal areas that a diabetic must control. Those are food intake, exercise and blood sugar monitoring. The relevance of “no pain, no gain” is that none of these three disciplines is much fun to implement, at least initially.

Perhaps the hardest issue for a newly diagnosed diabetic to adjust to is food intake. Most cases of newly diagnosed diabetes are related in some part to years of poor food choices. Long term consumption of more calories than necessary for activities related to daily living, leads to the development of insulin resistance. This is the cause of the majority of new cases of Type II diabetes. Because carbohydrates are so readily available in our society (breads, pasta, sweet and sugary things, snack foods and soft drinks), it is often carbohydrate excess that is the culprit. The difficulty comes after the diagnosis of diabetes is made. Suddenly, one has to redefine everything that is eaten in terms of its effect on blood sugar metabolism. Thirty or forty years of eating habits must be changed overnight. That is not an easy task. For sure, some of the difficulty is knowledge. Most people spend their lives blissfully unaware of what they are eating three times a day. They are concerned about taste and only taste. Fat, protein and carbohydrate content, fresh versus preserved, organic or chemically treated, are seldom issues that cross the mind of most people. An hour or two with a nutritionist is an essential aid in educating the newly diagnosed diabetic about all of those matters that must now be of concern regarding food consumption. Once the education has started, there are countless written publications and resources on the Internet, to which the diabetic can turn for ongoing assistance.

However, even with an improvement in one’s knowledge of food, it is changing one’s habits, which poses the greatest challenge. Having spent a lifetime perfecting matters such as what tastes good, what is convenient to prepare or buy and what is affordable, it is a tall order to suddenly have to turn everything upside down. Developing an entirely new set of criteria for food selection, while still addressing taste, convenience and affordability, requires dedication, perseverance and teamwork between the food preparer

and purchaser. It is a complete retraining and often is the greatest hurdle to overcome. Once a new style of eating has been developed, it quickly becomes as familiar as the old. The transition is the time when most problems occur and the time when most failures are seen. No pain, no gain!

Lack of exercise is an essential contributing cause of Type II diabetes. As with over eating on a long term basis, chronic under exercising leads to insulin resistance and eventually diabetes. We know that regular exercise improves insulin resistance and reduces the likelihood of developing diabetes, by perhaps as much as fifty percent. The usual recommendation is for thirty to forty five minutes, five days a week. The type of exercise is far less important than the simple act of doing something. Walking is perfectly adequate in terms of exercise intensity to produce the desired benefit. Once again, the problem is more with changing habits than it is with the concept of exercise. Many people have one or two jobs, or are on the road all day, or have commitments to their children or simply haven't found anything that they enjoy doing. Whatever the explanation, it is all too easy to find an excuse not to exercise. It requires a positive approach and desire to succeed, to commit the time required to get in those five sessions a week. A look at what can happen to a poorly controlled diabetic, ought to be sufficient incentive to find ways to squeeze in the time. No pain, no gain.

And finally we come to blood sugar testing. It's not a great surprise that people do not enjoy sticking a needle in their finger or arm two, three, four or even as many as eight times a day. It hurts a little, it's a nuisance, it's not cheap and it's frustrating if the numbers aren't what you want them to be. But there is a wealth of experience and scientific evidence to support the notion that the closer to normal a patient maintains their blood sugars, the less the chance of developing complications. There are also numerous studies showing that diabetics who check their sugars often, do better than diabetics who check less often. So it has to be done if good control is the goal, but it is certainly an adjustment. Relief has arrived to help with this problem. The companies that make insulin pumps have just begun manufacturing devices called continuous glucose sensors. The sensor is placed under the skin just like an infusion set from an insulin pump and can remain in place for up to three days before the device must be changed. The sensor is connected, either by hard wire or by radio transmitter, to a display screen. The sensor detects the sugar level in the fluid immediately under the skin. While this isn't a "blood" sugar in the strict sense, the levels of sugar in the blood and in the fluid under the skin are usually very similar. The device allows the patient to obtain a real time reading of their sugar level, on demand, throughout the day, without sticking their finger. Readings can

be obtained every few minutes if desired. Clearly, this is going to revolutionize a patient's ability to fine tune his or her diabetes control. Finally perhaps, No pain, lots of gain!

*Dr Philip Nicol is the Medical Director of **The Diabetes Center**, the only medical practice in the region devoted solely to the care of diabetics. Dr Nicol has received recognition from The Diabetes Physician Recognition Program, a joint program of the NCQA and the ADA, for the period March 2005 through February 2008, for providing quality care to diabetic patients. The Center offers free, no obligation, screening for diabetes and pre-diabetes Monday-Friday. To contact Dr Nicol, or to schedule a free screening, call **843-293-8400**.*