## How do you feel about your running form/style/technique?

During the initial interview with a client a standard question that I use is "how do you feel about your running form, do you think you have good form, or do you think you look like Ikabod Crane"? "Do you strike the ground with your heel first, whole foot, or toes"? I ask these questions in order to determine what direction the rest of the consultation should take. If there is a suspicion that faulty running form might be contributing to the injury or poor performance the examination will need to include a slow motion video analysis of the running form. If the feeling is that the client has good form, this suggests that the manner of running is unlikely contributing to the injury or poor performance and that the consultation should investigate the individuals training program or their anatomical structure.

In response to my questions what I hear most often is, "I don't know". On face value it is somewhat surprising that so many runners don't know whether they have good running form or not. A Physical Therapist colleague Doug Kelsey has described this quick answer I don't know as "It pops out of a client's mouth like a piece of toast out of a toaster". Doug suggests that when they answer "I don't know" comes so quickly, it is quite likely they do know, and they're just buying some time to figure out what they feel and how to say it. Of course some clients truly don't have a clue whether they have good or poor running form/technique.

I believe a majority of runners do have some awareness of how they feel about their running form/technique. Now whether the self awareness about their running form is accurate or not is another question. In my experience some clients would best be described as having a false positive opinion of their running form, that is, they think they have good running form, but really don't. Of course we could debate for quite some time what is good running form. Despite years of study, volumes of publications and the practical experience of the best coaches there continues to be controversy regarding what is ideal running form/technique. Currently, delineating what is correct running form is more art than science, and it is based more on theory than evidence.

There continues to be a pervading philosophy that it is dangerous to tamper with a runner's natural stride and running form. I believe this opinion was based on research showing that the most economical

running occurs when the runner was allowed to choose his own strike length as opposed to running at a stride length which was longer or shorter than his/her preferred stride length. You can still find articles today that will tell you that a runner's form will develop naturally over time. This concept is contrary to every other sport, where it is expected that coaches will teach the correct manner to perform the skill. It is expected that a novice basketball player will be taught the fundamental movements to shoot a basketball, or to assume a defensive stance. It is expected that a novice golfer receive instruction and feedback in the proper form and technique of a golf swing. It would be considered illogical to believe a novice golfer will develop ideal golf swing on his own over time. Too often it is assumed that novice runner knows how to run correctly. It is true that a runner's form develops over time, but that does not mean that it will be ideal running form.

There is a growing consensus that striving to eliminate awkward running form is an excellent method of becoming a more efficient injury free runner. The theory is and there is some evidence that learning to run with better form leads to more economical distance running. The theory is and there is some evidence that learning to run with better form a runner is less likely to experience an injury.

Given that a runner may have a false positive image of their running form, and that having better running form should lead to more economical injury free running, the first challenge is for a self coached runner is to obtain a valid image of their running form. Visual feedback with photos and video recordings can verify self image or provide evidence of an individuals running form. Over the past 30 years video technology has progressed to make it relatively easy to obtain a visual data. Even inexpensive digital cameras often have a video setting, and often cell phones can record video data. Once digital video data is uploaded to a computer playback applications can vary the speed of the playback between normal speeds to slow speed or frame by frame.

Given the video data of an individual's running form the next challenge is assessing the data in order to determine whether the running form is good or faulty. Sometimes faults are so obvious it is easy to identify. Other times subtle but significant faults require analysis by an expert. Once faults are identified a runner can endeavor to eliminate the faults

Even though it sounds clichéd to say "what gets measured gets done". If the goal is to improve running form, measurement of running form needs to occur, and recording of running form should be stored. A common procedure is to measure workouts and race times. The concept of measuring and recording the manner of running (running form/technique) with visual data makes sense, but this is not a common procedure. If a runner measures and assesses their running form/technique, they can quickly and accurately answer the question "how do you feel about your running form"?

When asked how they feel about their running form, some individuals accurately recognize they have bad form. These individuals often express the opinion that "I don't need to see my running form/style I know it's bad". There is some truth to this belief. A great deal of enjoyment occurs from running for exercise even though the running form/technique looks like Ikabod Crane. However, faulty running technique can contribute to the development of an injury, in which case it becomes worthwhile to obtain visual data about running form/technique.