**Is PostureScreen a Professional Method of Posture Analysis?**

a review by Joseph Ventura D.C.

**Intro**

I’ve spent the last 16 years developing a reliable method of using computer software to display and analyze human static posture (Posture Pro). Within the past two years a different technology has appeared, called PostureScreen claiming to be able to perform accurate posture exams using mobile devices like an iPhone or android tablet.

The author is a software engineer, well versed in various software languages, including the tools necessary to author apps for mobile devices. My own company, VenturaDesigns has looked at mobile solutions over the past three years starting and stopping projects because of dissatisfaction from the performance point of view. In short, mobile operating systems just don’t have the juice of real computer operating systems. For example, an iPad will NOT run the same version of a Mac program that a Mac book can run. It must run a lite version, if one is available.

Posture Pro requires real computing power to be able to deliver the full experience of what it can do. That’s why we recently abandoned a new attempt at a mobile version. The current devices just aren’t good enough and we will not compromise performance. We do offer a portable solution through the use of Windows 8 tablets that have the power to deliver the Posture Pro experience of the best posture software available. We call it Posture Pro Touch.

The following is an analysis of the current state of the PostureScreen system and what I perceive to be the reasons for avoiding it’s use in a professional setting. This analysis is based on personal experiences, speaking with users and examining information posted on the PostureScreen site.

**PostureScreen Camera Issues**

PostureScreen depends on the built-in camera optics of the android or Apple device. These camera cannot compare to the optics of regular digital cameras. The specs are so crappy Apples does not even want to post them. The biggest issue is with the short focal length of the lens. Short focal lengths are used to get more of the subject in the frame. But the trade-off is a much greater chance of radial distortion of the picture. This is such an issue with the PostureScreen “How come the floor looks unlevel?” they have devoted a video to “explain” how it’s mostly operator error. Bull. Look ast the unlevel floor in the first sample picture. It was taken by the same person who tells you in the video how to avoid it.

Using an actual digital camera with a prime lens greatly reduces opportunities for radial distortions. **Our Posture Pro software has a compensation feature built-in to reduce radial distortions.**
Exam Speed
PostureScreen as a screening tool is slow. Very slow. As a tool designed for quick screening use it takes several minutes to enter the patient's information and get their height and weight.

The accuracy of PostureScreen's distance and "force" calculations depends entirely on the patient's height and weight. In the author's opinion you cannot rely on the patients stated height and weight. Everybody is taller and lighter than their stated dimensions. So, you must take those calculations with a height/weight scale. Not exactly the fastest screening method ever developed.

With our Posture Pro you can perform a screening exam in about 17 seconds. Period.

Force Formulas Used by PostureScreen
PostureScreen makes a big deal out of generating the weight of the head. There is a basic fundamental flaw in their formula: How they estimate the weight of the head. It is generally accepted that the adult human head weighs 8-11 pounds. There is another number floating around the Internet that the weight of the human head is 8% of total body weight. That is true if you weigh about 140 pounds. But a person can weigh much less than 140 and much more than 140, but the head weight remains the essentially the same. A child's head weight is less than an adult, but not by much.

So using 8% of body weight to estimate a patient's head weight is a very imprecise starting point. But it appears that is what PostureScreen does. It's why they require a body weight. So an imprecise starting point plus physics calculations = imprecise ending point. And a meaningless ending point at that. Telling a patient that their head weighs triple what it should, even if it were accurate, means nothing in terms of patient education. What's important is what the effective head weight gain DOES to the patient. Posture Screen does NOT calculate those important stresses. Posture Pro does.

Calibration
PostureScreen requires one of two methods to calibrate each exam. Either click on a known object in the background, or enter the exact height of the patient. If the height calibration method is used, the picture MUST be ACCURATELY cropped before any analysis or the distance measurements will be invalid. An accurate value is necessary to convert angles to distance.

Time after time, in the pictures on the PostureScreen website and in their instructional videos, part of the head or feet get cut off, effectively making the subject appear shorter when the calculations are done. This inconsistency renders the results inaccurate and any comparison exam inaccurate.

To be remotely accurate with PostureScreen, you will need to take the patient's weight before each exam. You don't need to do this with Posture Pro.

Using the 8% of body weight to estimate the head weight of the child results in a head weight that is way too light.

In both of these pictures, taken and cropped by the PostureScreen software developer, significant cropping of the foot has occurred, removing any possibility of an accurate distance conversion.

If the software developer is having problems, what hope does the average user have?

Posture Pro does NOT require this information to convert angles to distance, making it's use much easier, more convenient and faster.
Point Selection
I watched a PostureScreen training video over and over as Dr. F. said to use the AC joint as the second point. It is true that in normal neutral posture the center of the ear is approx. in line with the AC joint as shown in the illustration. But, you cannot see this point with clothing on and the point Dr. F himself selected in the training video is nowhere near the AC joint. This second point is super critical. It establishes the amount of forward head travel of the head. It has to be accurate. Again, it appears even the developer of PostureScreen has a challenge in using the app.

There is a more accurate point to select, and that's what we use with Posture Pro.

Head to Head with Posture Pro
The allure of a cheap posture analysis system has led many to try PostureScreen. The adage “You get what you pay for” With PostureScreen you get a system that is slow, cumbersome and appears to have accuracy challenges.

Let's let PostureScreen and Posture Pro go head-to-head and see which system comes out to be the more versatile and professional. We will even use the same patient, courtesy of PostureScreen.
Both systems use five anatomical landmarks to plot lateral posture. It's what happens after the points are plotted that the weaknesses of PostureScreen as a true clinical tool are revealed.

1. Posture Screen reports that the head is 2.33” forward.
2. PostureScreen reports the head now effectively weighs 31.7 pounds.
3. Shoulders are shifted 1.9” Backward.
4. Hips are shifted 2.51” Forward.
5. Knees are shifted .83” forward.

It appears that even though PostureScreen displays a very nice green vertical line, absolutely nothing is done with the deviations from vertical. It appears that PostureScreen is only concerned with relative offsets.

My Posture Pro System accounts for both relative AND absolute offsets because the pull of Gravity does not know the difference and offsets from absolute vertical affects treatment times.

1. Posture Pro reports the head is forward 3.3” over the shoulder AND 5.1” from the absolute plumb line.
2. Posture Pro reports the additional effective weight of the head is causing 98 pounds of tension pull in the cervical muscles AND creating 91 Newtons of compressive force.
3. Shoulders are still 1.9” in front of the absolute plumb line.
4. Posture Pro reports a pelvic forward movement of 4.5” in front of the absolute plumb line and a pelvic tilt of 10 degrees.
5. Knees are 1.2 inches forward of the absolute plumb line.
6. Posture can also calculate the patient's Loss of Height
7. Posture Pro combines all these deviations from normal and forces into a singular, easy to understand value, the Posture Number™.
8. Remember that Posture Pro is based on a one time fee for everything. So we don't mind putting the results on the screen.

*PostureScreen is a registered trademark of Postureco, Inc. CORPORATION FLORIDA 3152 Little Road, Suite 161 Trinity FLORIDA 34655
The use of public images from Posture Co website are for consumer comparison purposes only and can be found at www.postureco.com*
What PostureScreen Can't Do

The whole point of posture analysis is to provide valuable clinical and educational information. Posture Pro is the pre-eminent posture analysis system, offering a long list of exam features and report capabilities. The following are just two.

Stress Screen

Only Posture Pro lets the patient take a peek under the clothes/skin and muscles to see how the skeleton is responding to the postural offsets and mechanical stresses. You can toggle between Normal/Actual exam/Future distortions. This screen changes for every patient and reflects the actual postural distortions. It even plots the patient's Center of Gravity. No other posture system generates this invaluable information.

Stress Report

Then, when you want to really blow the patient away, print out a stress report. We can predict downward compressive force, measured in ft pounds, and distribute that stress over the cervical and lumbar spine. An amazing leap in technology, not found anywhere else.
Conclusion: Do you want to be perceived as a professional or amateur? Look around, no full featured software, for any profession, is available as an iPad or Android device. Those devices lack the computing power and screen real estate to be effective.

Ask yourself this question: Do I want to use a $10 app the patient can find on iTunes as a professional tool. My Smart Phone has a flashlight app. It comes in handy when I'm grilling at night, but would I ever use that app as a flashlight replacement if I needed a flashlight for my job? Hell no!

When it comes to fast, accurate and useful posture analysis there is really only one choice. Posture Pro. And, only one question to ask your patient.

What's Your Posture Number?

Please send any questions or comments to Dr. Joe Ventura, drjoe@posturepro.com

913 239-8139

Learn more at www.PostureSoftware.com

Live Internet Demos Available.

Other Exams That Posture Pro Does and PostureScreen Does Not

Use foot orthotics? ONLY Posture Pro performs a Q-Angle measurement to show the necessity of orthotics and their effectiveness.

Interested in Backpack Safety> Again, ONLY Posture Pro has a built-in backpack safety calculator and a quick method of analyzing backpack stress. Plus, we have a complete line of backpack safety posters and video presentations. You won't find anything like that in PostureScreen.

And, did we mention that EVERYTHING you have seen regarding Posture Pro is included in the price. We even provide free technical support, access to our Knowledgebase and free updates.

Add up all the features, speed and ease of use and Posture Pro is the best value in clinical posture analysis.