

TriHealth Corporate Health Position Statement:
Fingerstick or Venous Blood Draw for Health Screenings: Making the Best Choice
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TriHealth Corporate Health has extensive experience performing health screenings that include blood tests with specimens collected by both fingerstick and venous blood draw. Making the “right” choice depends on a number of factors, and both techniques have their place.

Cholestech LDX System:

Because of superior operating performance, TriHealth Corporate Health uses the Cholestech LDX System exclusively for analyzing blood samples obtained by fingerstick. Therefore, “fingerstick” methodology in this paper refers specifically to the Cholestech system. The only tests we perform using this system are: total cholesterol (TC), HDL cholesterol, Total/HDL Cholesterol ratio, Triglyceride, LDL Cholesterol, Blood Glucose and Hemoglobin A1C.

Factors that Favor Fingerstick:

- 1- **Results immediately available to discuss with participant, providing a critical “teachable moment” and to plan next steps.** This is far and away the most important factor in favor of doing screening tests on site via fingerstick.
- 2- **Immediate availability of results** allows participants to enter results in health risk appraisal questionnaires (HRA’s) at the time of the screening.
- 3- **Success in obtaining test specimens** (over 99.9% using fingerstick vs. 98% using venous blood draw with up to two attempts).
- 4- **Participant’s fear of needles.**
- 5- **Fewer complications than with blood draw**, e.g. 15% rate of bruising, and higher risk of infection, and excessive bleeding with blood draw, than with fingerstick.
- 6- **Fewer technical issues with obtaining satisfactory specimens.** Venous blood drawing using a tourniquet can cause falsely high values when it takes a while to obtain the specimen and specimens are more likely to be mislabeled, damaged, or unacceptable (inadequate volume, hemolysis of the blood sample) when obtained by venous blood draw. Serum glucose levels decrease by 8% per hour in blood tubes between the time of specimen collection and the time the serum is removed from contact with the clot.
- 7- **Less time consuming.** On average, it takes 1 ½ minutes to obtain satisfactory specimens using fingerstick methods vs. 5 minutes for venous blood draw.
- 8- **Similar accuracy and precision to tests performed at labs.**

Factors that Favor Venous Blood Draw:

- 1- **Client requests one or more tests that cannot be performed using fingerstick methods**, for example, complete blood count, prostate specific antigen, and thyroid tests. This is far and away the most important factor in favor of using venous blood draw.

- 2- **Some participants experience less pain** with venipuncture than they do with fingerstick, although others report less discomfort with the fingerstick method.

A misconception held by many individuals, including many doctors, is that blood tests done using samples obtained by fingerstick are inherently less accurate and less precise than blood tests performed in laboratories using samples obtained through venous blood draws. This is not true.

Both laboratory testing and Cholestech testing yield results that fall within total error guidelines established by authorities, for example the guidelines for accuracy set by the CDC's National Cholesterol Education Program for lipid tests.

Cholestech methods done for screening purposes have a narrower range of results than analyses done at national laboratories. For example, the upper range for the Cholestech LDX method for both total cholesterol and glucose is 500 mg/dL, while diagnostic laboratories can report results as high as 800 mg/dL for total cholesterol and 1500 mg/dL for glucose. Doctors respond the same way to a total cholesterol of greater than 500 mg/dL as they would to a laboratory result of, let's say, 650 mg/dL. They are both very high. The same would be true for a glucose level of greater than 500 mg/dL and a diagnostic laboratory result of 800 mg/dL

Both Cholestech screening methods using blood specimens from fingersticks and diagnostic laboratory testing using specimens obtained by venous blood draw are accurate within the applicable range; both methods allow us to identify people who are within the desirable range and those who are outside of the desirable range.

Have questions or want more information?

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