# Measuring the Function of Your Liver

Research partially supported by a grant from the PSC Partners Seeking a Cure Foundation

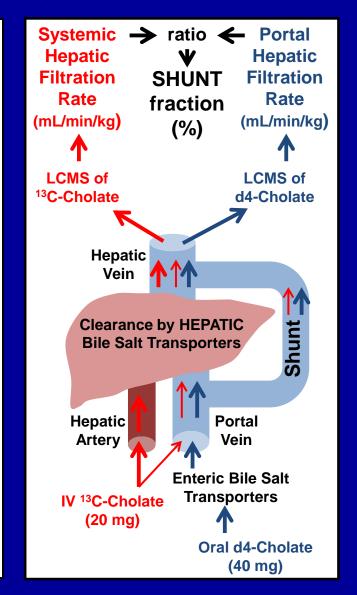
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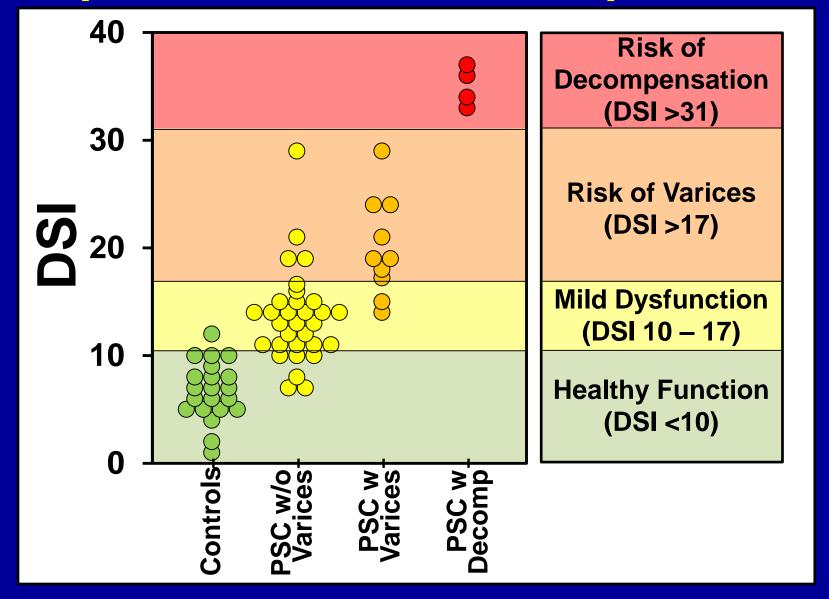
### A New Type of Liver Function Test that is Safe, Convenient, and Accurate

#### **Testing Procedure**

- Nurse places an IV catheter in the patient's arm and takes a small blood sample (1 tsp).
- 2. Nurse gives a small dose of <sup>13</sup>C-cholate (20 mg) through the catheter.
- 3. At the same time, the patient drinks a cup of juice with a small dose of d4-cholate (40 mg). <sup>13</sup>C-cholate and d4-cholate are safe and are <u>NOT</u> radioactive.
- 4. Nurse draws small blood samples (1 tsp) from the catheter at 5 min., 20 min., 45 min., 60 min., and 90 min.
- 5. Nurse removes catheter and patient can immediately resume normal activities.
- 6. Blood samples are analyzed to measure a Disease Severity Index (DSI).



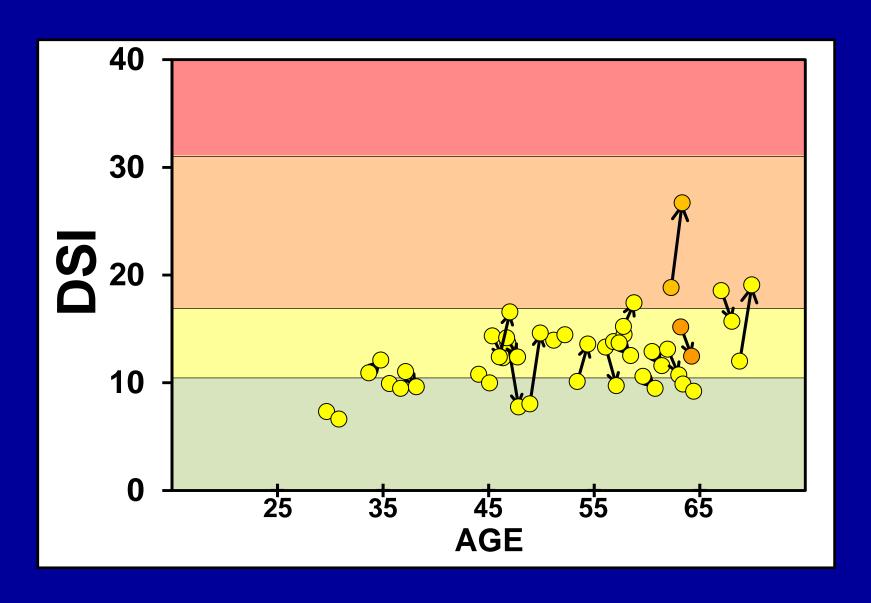
## Liver Function Testing Helps Predict Risk of Complications



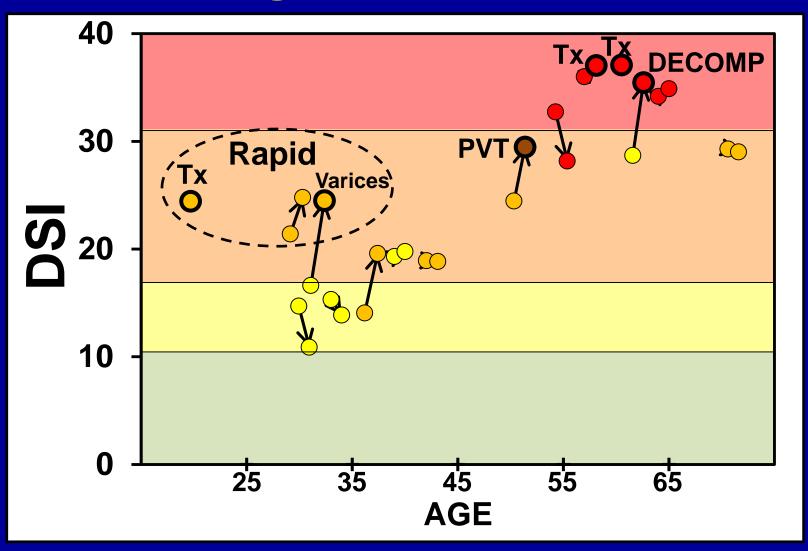
### Liver Function Testing Helps Predict Risk of Complications

- A DSI > 17 indicates you may be at risk for swollen veins that shunt blood around the liver (varices)
- A DSI > 31 indicates you may be at risk for a more serious stage of liver disease (decompensation)

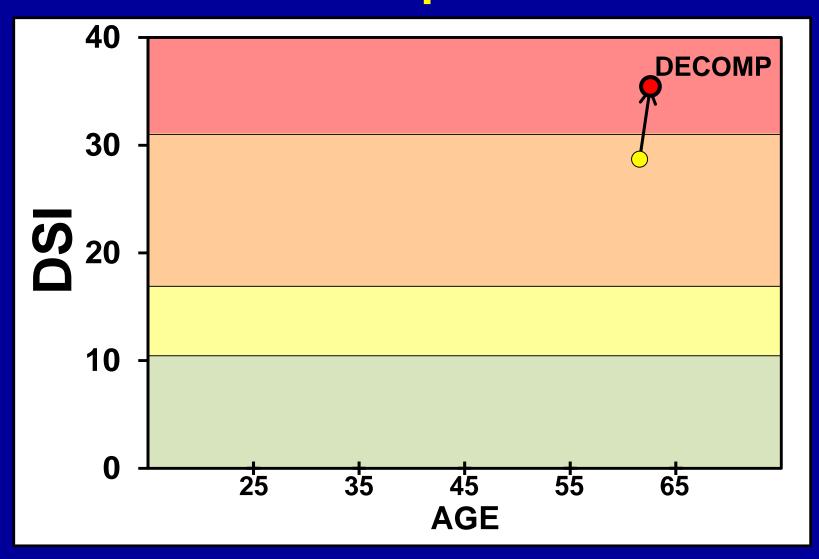
#### **Slow Progression of PSC**



## Moderate and Rapid Progression of PSC



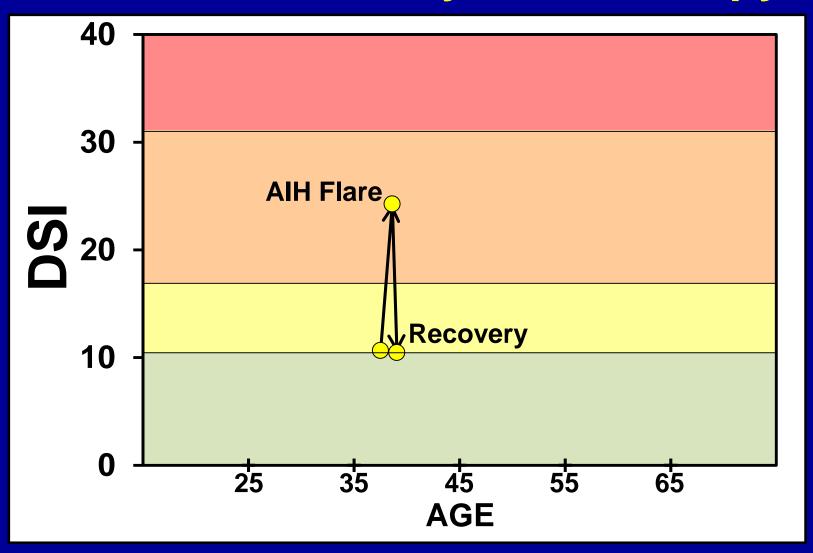
#### Monitoring a Patient with a High Risk for Decompensation



#### Liver Function Testing can Measure the Progression of PSC

- Patients progress at different rates.
- Most patients progress slowly over many years and have only mild dysfunction.
- Some patients progress at a moderate rate and have serious complications late in life.
- A few patients progress rapidly and have complications in early adulthood.

#### Monitoring a Patient with an AIH Flare and their Recovery after Therapy



#### Summary

- Liver Function Testing can predict your risk for complications.
- Liver Function Testing can follow the progression of your disease.
- Liver function Testing can also measure improvements after therapy and could be used to evaluate new treatments for PSC.