

BOBS' NEW BLOOD CHEM PATTERN

Possible early breast cancer detection by blood chemistry

ESTABLISHED PATTERN:

1. **Increased serum iron**
2. **Increased % transferrin saturation**
3. **Normal or Decreased TIBC**

With this pattern R/O:

1. Iron overload
2. 50% with this pattern have a B6 deficiency (B6 is essential for zinc absorption)
3. Lead toxicity
4. Hemochromatosis

THE NEW PATTERN:

1. **Increased serum iron**
2. **Increased % transferrin saturation**
3. **Increased TIBC**

Increased TIBC normally indicate low iron levels yet the serum iron and % saturation would indicate high iron levels. How could the following, seemingly contradictory pattern, be interpreted?

Research Supports that:

1. Cancer cells, including breast cancer cells, have more transferrin receptors on their membranes and higher levels of ferritin inside the cell membrane.
2. Estrogen in breast cancer cells significantly increase transferrin production in order to obtain more iron for the cancer cells to feed on.
3. Breast cancer patients absorb more iron from food than non-breast cancer patients, even when both eat the same type and amount of food. Again, this would make sense as cancer tries to sequester more iron for its growth by mutating normal iron absorption pathways to increase iron levels and it creates more transferrin to grab onto this increased serum iron.
4. Most cancer patients have low zinc levels, perhaps related to decreased B6?

(Ferritin does not seem to play a part in this pattern unless it is elevated due to its role as an acute phase reactant.)
(To assess true anemia in the cancer patient a soluble transferrin receptor (sTr) test should be done.)

Based on the research synopsis and information if the above pattern is occurring I believe it would be logical to assume that :

- **A past breast cancer has created mutated iron absorption pathways, esp. TIBC, in the surviving breast cancer patient, or**
- **A possible developing breast cancer (estrogen receptor positive) that should be assessed and ruled out.**
- **Tests – CA 15-3, CA 27-29, CA 125, CEA, Circulating tumor cells**