Focusing on increasing SHBG is like treating a lab value rather than treating a patient.

The question I would have for a person with low SHBG is: What problems does one have?

Is it low libido, high blood pressure, heart attack risk, depression, anxiety, lack of energy, impaired concentration, urinary frequency, gynecomastia, hot flashes, etc.?

By identifying one's problems, it will be easier to see whether or not SHBG level contributes to the problem.

SHBG has signaling properties of its own. It has its own receptors on cell membranes. When testosterone or estrogens are bound to SHBG, it can bind to its receptors and send its message to the cell. What happens afterwards is not clear. It may be related to the formation of more hormone receptors - but that is speculation at this point.

SHBG helps prolong the duration of action of testosterone, DHT, and estrogens. Low SHBG will increase the amount of free hormone.

Swings in hormone level may occur when low SHBG is present as destruction of the hormone is accelerated by having high free levels. This may cause problems experienced during testosterone replacement. For example, if estrogen is more quickly destroyed/metabolized and levels drop more quickly, one can get hot flashes or anxiety or hypertension, etc. If testosterone levels fluctuate from high to low, depression can occur as the day progresses.

SHBG is made in the liver in response to levels of many hormones:
1. Increasing Testosterone reduces SHBG
2. Increasing DHT lowers SHBG
3. Increasing DHEA lowers SHBG
4. Increasing Growth Hormone lowers SHBG
5. Increasing Insulin lowers SHBG
6. Increasing Estrogen increases SHBG
7. Increasing Thyroid Hormone increases SHBG

The SHBG level is determine by the balance of the hormone levels.

Given one's assumed goals in TRT (high libido, good energy, etc.), it may be difficult to increase SHBG without causing problems since SHBG is determine by a balance of hormones.

For example, having high Testosterone and high DHEA is not a situation where SHBG is going to be high without corresponding problems with estrogen or thyroid.

If anything, SHBG should be most often viewed as an indicator of a problem that needs to be solved - rather than as a problem itself.

For example, SHBG is most commonly an indicator of high insulin levels - i.e. insulin resistance or diabetes. It would be then far more important to address insulin resistance or diabetes in treatment than to focus on SHBG.

If low thyroid is a factor in low SHBG, addressing hypothyroidism is far more important.

If low estradiol is a factor in low SHBG, addressing this is more important.

If the low SHBG itself is a problem because it causes large swings in hormone levels, then working around this by achieving more stable hormone levels is indicated.

More frequent dosing of testosterone may be required to stabilize levels. With testosterone cypionate or enanthate injections, dosing twice a week would be better than once a week.

If frequent dosing of testosterone cannot be achieved with transdermals or injections, then a constant dose solution may be needed. This includes testosterone patches, the buccal system, or testosterone pellet insertions. Testosterone pellet insertions may be viewed as fairly drastic since it involves regular minor surgical procedures, but does give the most stable levels - so is a viable solution for the men with problems due to highly variable hormone levels resulting from low SHBG.

If one suspects swings in hormone levels as a cause of problems, one can look for the swings in hormone levels by obtaining a peak and trough level of the hormones (e.g. total testosterone, estradiol, DHT, etc.). For testosterone injections, this is a level about 24-48 hours after an injection and a level just before the next injection. One can also obtain a midpoint level to fill out the level curve.