**Which is better: A natural or synthetic derived trace mineral supplement?**

When comparing trace mineral supplements derived from natural sources versus those that are synthetically derived, there are a few key differences and potential advantages to consider for each:

**Bioavailability:**

* **Natural Sources**: Trace minerals derived from natural sources, like whole foods, plants, or mineral-rich waters (e.g., sea salt, earth clay, or plant-based minerals), may have better bioavailability. This means they are more easily absorbed and utilized by the body. Natural sources such as MLG-80 contains a complex array of trace elements and cofactors that enhance absorption.
* **Synthetic Sources**: Synthetically derived minerals are typically isolated forms of specific minerals. While these forms can still be absorbed by the body, they may not be as efficiently utilized due to the lack of accompanying nutrients that often come with naturally occurring minerals.

**Complexity and Synergy:**

* **Natural Sources**: Whole-food-derived or naturally sourced minerals tend to come with a broader spectrum of other trace minerals, vitamins, and phytonutrients that support their function. The synergistic relationship between different nutrients in natural sources may enhance overall absorption and effectiveness. For instance, minerals like magnesium and calcium work better together in naturally sourced forms.
* **Synthetic Sources**: Synthetic trace mineral supplements often contain only isolated minerals, which might not provide the same synergy with other elements that are present in natural sources. This could limit their effectiveness or lead to imbalances if taken without adequate co-factors.

**Purity and Contaminants:**

* **Natural Sources**: Minerals from natural sources can sometimes contain additional elements or contaminants depending on the quality and origin of the source. For example, natural sea minerals may contain trace amounts of heavy metals or other environmental contaminants.
* **Synthetic Sources**: While synthetic trace minerals are often highly purified and controlled for contaminants, they might lack some of the beneficial compounds found in natural forms. However, high-quality synthetic supplements can be just as pure and safe as natural alternatives, provided they are sourced from reputable manufacturers.

**Cost:**

* **Natural Sources**: Supplements derived from natural sources tend to be more expensive due to sourcing, harvesting, and processing costs.
* **Synthetic Sources**: These are typically cheaper to produce, which can make synthetic mineral supplements more budget-friendly.

**Purity and Potency:**

* **Natural Sources**: In some cases, natural mineral sources may be less consistent in mineral content due to variations in soil quality, environmental factors, and harvesting methods. However, high-quality natural supplements are often tested for potency and consistency.
* **Synthetic Sources**: Synthetic minerals tend to be more predictable in potency and purity, as manufacturers can control the production process more precisely.

**Conclusion:**

* **Natural Source Trace Minerals**: Often offer better bioavailability, enhanced synergy with other nutrients, and may provide a more holistic nutritional profile.
* **Synthetic Source Trace Minerals**: Can be highly purified and cost-effective, though they may lack some of the additional benefits from naturally occurring co-factors and might have lower bioavailability in certain cases.

The best choice depends on individual needs, preferences, and the specific mineral in question. For someone with specific health concerns or looking for a highly bioavailable form of a mineral, a natural source may be preferable to a synthetic option. We always advise to seek the advice of your health care professional before undertaking any health supplement regimen to discuss the best available options.

*Written by Dr. Mark Williams January 2025*