

Data came from the Nielsen reports for the last 52 weeks ending Dec. 10th 2016 for the whole category, including Curcumin. Ultimately, the success of SierraSil boils down to providing

consistent value to our customers, backing all our health claims with quality clinical research, being understated in the benefits and facilitating quality of life improvements for our customers. **How do we do that?**

Research provides the foundation for everything. Since 2003 we've been committed to building on the body of evidence that supports SierraSil, a hydrothermal mineral complex sourced from the Sierra Mountains that is geologically unique. The research started with safety trials, where we did every test recommended to us including an Acute Oral Toxicity study at 30 days, a Sub-Acute Oral Toxicity study at the most rigorous 90 day option performed in

compliance with the OECD protocol¹ and the AMES test to look at any potential carcinogenic activity. Not only could the researchers not find a point of toxicity, they were also observing decreases in heavy metals in the body. **One of SierraSil's abilities to heal is in its ability to chelate and cleanse.** In a Toxicology and Potential Chelating Effect of SierraSil study² conducted by Dr. Jim Lavalle, subjects were instructed to take 4gr of SierraSil (a double dose) for a period of 6 months with urine samples being collected at 3 months and 6 months. SierraSil's ability to chelate lead from the body was statistically significant.



"A 56.9% decrease in lead between T0 and T6, and a 62.7% decrease between T3 and T6, both of which are statistically significant at the 5% level. The drop in the median values (13 μg/g at T0, 15 μg/g at T3, and 5.6 μg/g at T6) is nearly sufficient to bring the lead results to within the reference range (< 5 μg/g)."

From before the time SierraSil was made commercially available, people were reporting incredible results, everything from cancelled knee replacement surgeries to being pain-free for the first time in years and we wanted to quantify those results. **The key, we would discover, was in SierraSil's ability to modulate the inflammatory response, gently detoxify and curtail cartilage breakdown.** Let's start with taking a look at inflammation, which is at the core of most arthritic symptoms, especially pain. Perhaps the most telling trial was a mechanism of action study published in The Journal of the American Nutraceutical Association³. The study was designed to look at how SierraSil could limit human cartilage degradation-activated chondrocytes.

THE
RESEARCHERS
REPORTED THE
FOLLOWING:

"Chondrocytes were activated with the addition of the inflammatory cytokine interleukin-1 (5 ng/ml). Measured outcomes were media nitrate/nitrite levels as an index of nitric oxide production, and media glycosaminoglycan (GAG) concentrations as an index of matrix breakdown... SierraSil® alone significantly reduced IL-1-induced GAG release by 68–73% (p<0.01)."





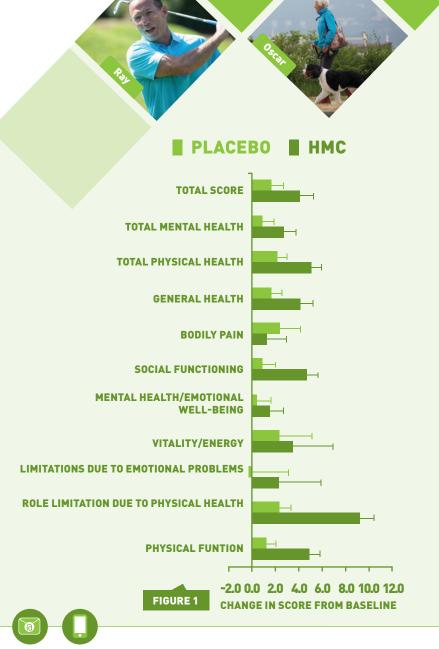
So by calming inflammation, SierraSil was able to **reduces cartilage breakdown by up to 73%.** Now you may be thinking that these measurable improvements in GAG concentrations are great but how does that relate to the effect on physical function and are these results repeatable? Well, SierraSil has also undergone 3 human clinical trials that were double blind, randomized, placebo controlled and cross-over – the gold standard in clinical research design, and yes, the results were consistent. As you can see from the graph to the right, **SierraSil provided significant improvement in many physical function categories** measured using the WOMAC score⁴:

FIGURE 1 Effect of treatment on SF-36 domain scores from baseline to week 4 for both test periods.

Notes: SF-36 domain scores between HMC (dark green) and placebo (light green). *Significant improvement in SF-36 total (P=0.05) and physical function (P=0z.02) scores were reported by participants in HMC group compared with placebo.

Abbreviations: HMC, hydrothermal mineral complex; SF-36, 36-Item Short Form Health Survey.

These results along with others from the human clinical trials lead to the Health Canada approved claim for SierraSil Joint Formula 14TM "Relief of Joint pain". Consumers feel these results consistently and quickly, they notice better health and mobility and they return to the product month after month.



For more on the research, please visit http://www.sierrasil.ca/sierrasil-difference/.

Thank you for being a valued retailer of SierraSil products, your service to our mutual customers is not taken for granted. We will continue to build on the body of evidence that supports SierraSil and look forward to sharing the results of studies that are currently underway. If you have any questions, please don't hesitate to e-mail us at **info@sierrasil.com** or give us a call at **1-877-743-7720.**

WHY RECOMMEND SIERRASIL?

- Suitable for any dietary restriction (Vegan, celiac friendly)
- ✓ Consistent efficacy
- ✓ Rapid efficacy (3-14 days)
- Broad benefits (chelates heavy metals, anti-inflammatory, prevents cartilage breakdown, improves physical function)
- ✓ 100% North American ingredient (controlled from source to finish)
- 3rd party tested (Informed-Choice certified and Patented)
- Extended money back guarantee (60 days from purchase)
- Extensive 1st hand clinical research

References:

- 1. Repeated dose 90-day oral toxicity study with 28-day recovery period of SierraSil® in Sprague Dawley rats. Vedic Lifesciences, Mumbai, India. Study no. 3078/RF, Report no. R/4103/S0R-90. December 4, 2004.
- 2. Lavalle, J., Lieberman S., Sexton T.. The Toxicology and Potential Chelating Effect of SierraSil®. October, 2013.
- 3. Mark J.S. Miller, Salhuddin Ahmed, Paul Bobrowski, Tariq Haqqi. Suppression of Human Cartilage Degradation and Chrondrocyte Activation by a Unique Mineral Supplement (SierraSil™) and a Cat's Claw Extract, Vincaria®. Journal of the American Nutraceutical Association, Vol 7. No. 2:32-38, 2004.
- 4. Evans M., Wilson D., Guthrie N. Efficacy of a natural mineral complex in North American adults with osteoarthritis of the knee: a randomized double-blind placebo-controlled study. KGK Synergize Inc., London, ON, Canada. Dove Press Journal: Open Access Reumatology: Research and Reviews. October 3, 2014.