

"We know that cholesterol and its production are highly regulated by transcription factors, so the possibility to alter cholesterol serum levels theoretically exists," said Mr. Maloney. "Since low-level laser therapy was proven to affect transcription factors, we wanted to determine if laser therapy could serve as a subtle, non-invasive instrument to lower cholesterol and triglyceride serum levels."

Twenty volunteers between the ages of 18 and 65 participated in a non-controlled, non-randomized study. Participants received low-level laser treatments three times per week for two weeks, with each treatment session lasting approximately 40 minutes. Treatments were administered across the abdomen and waist area wrapping around the lower back, an area which generally contains the most concentrated pockets of subcutaneous fat. The low-level laser therapy used was in the red spectrum and contained 17.5 milliwatts of energy at 635 nanometers.

Mr. Maloney reported that 75 percent of study participants demonstrated an overall reduction in cholesterol serum levels, with the reduction ranging from -1.0 to -31.0 mg/dL and an average reduction of -16.1 points. For those participants demonstrating an overall reduction in cholesterol serum levels, 93 percent experienced a reduction in LDL levels (commonly referred to as "bad cholesterol"), with 47 percent revealing a reduction in LDL levels without experiencing a reduction in HDL levels (or "good cholesterol"). Of the 20 participants, 60 percent demonstrated a reduction in triglyceride levels.

"We were incredibly surprised by these findings, especially given that we stumbled upon this observation by accident," said Mr. Maloney. "It's exciting to see laser technology shift in the direction of treating chronic conditions with the potential to one day serve as a viable alternative to leading prescription medications used to treat high cholesterol."

Mr. Maloney added that this research is now moving into a randomized placebo-controlled, double-blinded clinical trial expected to begin at multiple sites later this year. The clinical trial will investigate, among other things, the long-term effects of low-level laser irradiation on cholesterol and triglyceride serum levels in hopes of establishing treatment guidelines to ensure levels are maintained over time.

Mr. Maloney concluded: "Low-level laser therapy is gaining popularity across the medical community as an effective form of preventative medicine, and I think this trend will certainly continue in the future."

The American Society for Laser Medicine and Surgery (ASLMS) is the world's preeminent resource for laser research, safety, education, and clinical knowledge. Founded in 1980, ASLMS promotes excellence in patient care by advancing clinical application of lasers and related technologies. For more information and physician referrals, please log on to the Society's website: [www.aslms.org](http://www.aslms.org).