

Getting Ahead of the Curve: Sarcopenia

By Dr. A. Elizabeth Sloan

With one-third of the U.S. population already over age 55 and another 31 million older Baby Boomers entering their “senior” years in the next 10 years, products that help cope with the health conditions and lifestyle consequences of advanced age represent an enormous, fast-emerging—and as yet untapped—nutraceutical market.

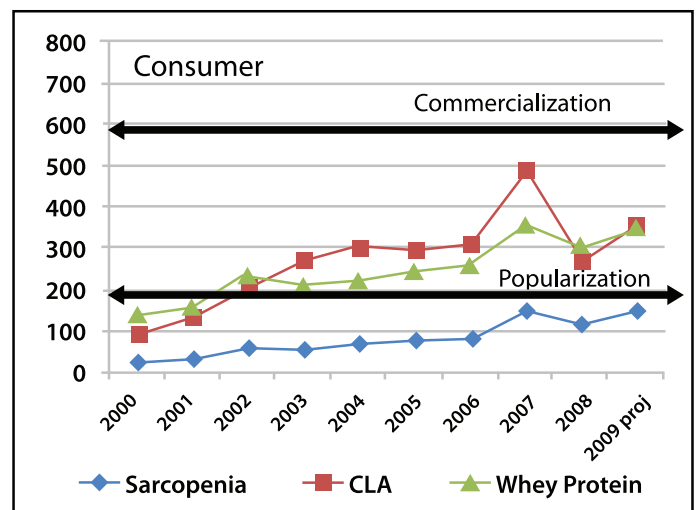
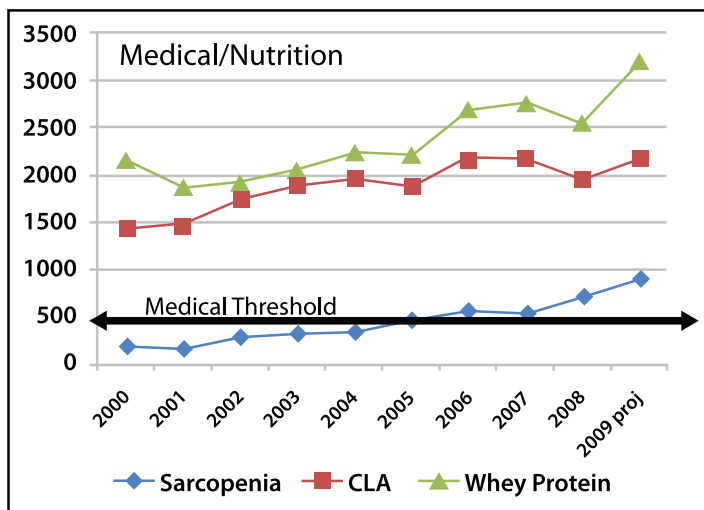
Although a number of conditions will move into the spotlight, perhaps none is more important to ensuring our functionality and mobility as we age than sarcopenia—the age-related loss of muscle mass that has an impact on strength, power and function, synonymous with physical frailty. In the U.S., sarcopenia affects 45% of people over age 60 and more than half of those 80+ years. Sarcopenia can

likely be prevented—and its severity lessened—by an adequate intake of protein, specific amino acids (e.g., leucine, cysteine and others), resistance exercise, control of inflammation, hormone replacement and the addition of various health-promoting ingredients, including creatine, conjugated linoleic acid (CLA), calcium and vitamin D.

Market Potential

In 1999 the CDC recognized sarcopenia as one of the top five major health risks facing the U.S. population. A 2003 study, published in the *Journal of the American Geriatrics Society*, estimated U.S. healthcare costs directly attributed to sarcopenia exceeded \$26 billion. According to Sloan Trends’ TrendSense model, sarcopenia is ready to enter the Popularization Phase, where it is perfectly poised as a marketing opportunity in the health food/specialty channel and among very health conscious/ condition-specific consumers. In 2005, sarcopenia crossed over the Medical Threshold, signaling the beginning of a long-term sustainable trend. Moreover, the exponential growth in Medical activity over the past decade is creating a strong body of scientific evidence, which will help propel this market mainstream. Ingredients that help build lean body mass, such as CLA and whey protein, are already making headway in the specialty/health food markets.

TrendSense: Sarcopenia



Source: Sloan Trends, Inc., 2009

* Although there are many factors that go into determining consumer trends, measuring how medical/nutrition activity levels have risen over the past decade, as well as some of the key milestones that have occurred and how these issues have been understood and embraced by the public are essential in predicting the sustainability of the Consumer trend line.

Recent medical evidence has linked sarcopenia to increased falls and fractures/osteoporosis, the sixth leading cause of death among those aged 65 and older. Sarcopenia decreases immune function while increasing the potential for sports injury and the risk of metabolic syndrome, a precursor of diabetes and heart disease. A new condition, sarcopenic obesity, has been identified in the elderly. Loss of muscle strength—dynapenia—is an emerging related condition. While muscle strength is relatively stable up to age 50, a 15% loss per decade occurs between ages 50 and 70; 30% between ages 70 and 80.

Growth Opportunities

- Staying physically strong and healthy is consumers' "biggest priority" as they age, followed by keeping their mind sharp.
- Loss of muscle mass begins around age 40 with profound repercussions after 75, creating an even larger preventative target market. After age 50, we lose about 0.5 lb/year of lean body mass and increase body fat about 1 lb/year. In our 20s muscle is up to 60% fat-free mass, but by age 70 it's less than 40%.
- The National Institute on Aging cited sarcopenia as its major concern for the next decade.
- Risk of hospitalization is 50% higher for those with sarcopenia, meaning there is strong potential for insurance support for preventative actions.

Functional Foods and Beverages: Protein, vitamin D, calcium and amino acid fortified products can play an important role in coping with sarcopenia. Moreover, research indicates that many older adults' protein intake falls below recommended levels, leading some researchers to speculate that 25-30 grams of high quality protein per meal or 1-1.2 grams of protein per kilogram of body weight would be a more appropriate level vs. the current RDA set at 0.8 g/kg. Protein ranks third in terms of what those 55+ are trying to include more of in their diet, after whole grains and fiber, suggesting that protein fortified foods and beverages aimed at otherwise healthy individuals would be a welcome option. Moreover, more tailored therapeutic nutritional solutions provide an exciting entry into the Foods for Special Dietary Use and Medical Foods regulatory categories for traditional food manufacturers.

Dietary Supplements: Those aged 65+ are heaviest users of dietary supplements and the least interested in functional foods. As a result, high

protein powders and pills that help promote growth of lean body mass (e.g., whey protein, CLA, creatine, etc.) will find a welcome crossover market from sports nutrition. Sports and energy beverages designed to replenish and rebuild after resistance training—perhaps with ingredients geared to other senior issues, such as heart health or joint pain—is a new and exciting category, especially for those 50 and older. Supplements that have an anti-inflammatory component and possibly some approved hormone replacement products—particularly testosterone—will also benefit.

References furnished upon request.

About the author: *Dr. A. Elizabeth Sloan is president of Sloan Trends, Inc., Escondido, CA, which is a consulting firm that offers trend-tracking and predictions, strategic counsel and business-building ideas for food, supplement and pharmaceutical marketers. Each month she will provide analysis and discuss opportunities of a particular market being covered in a given issue.*

SLOAN TRENDS' TRENDSENSE is a 15-year-old trend tracking system, which identifies and quantifies trends as well as predicts the optimal timing, sustainability and life-cycle stage of ingredients, terms, product opportunities and related market issues.

The model displays medical and consumer "activity levels" based on a comprehensive analysis of five critical sources of information—consumer, trade and competitive, legal and regulatory and media coverage. The resulting charts give insight into the market's changing health issues and concerns, the ingredients that are up-and-coming and those that have just about run their course, as well as what health claims, marketing messages and products will bring your company the most success.

- **Emerging Phase** = Trends begin to appear on the radar screen. Companies should begin to collect literature and market details for those that exhibit continual growth and that might be of interest.
- **Popularization Phase** = Medical/Nutrition crossover to consumer media and marketplace; opportunity for niche or specialty markets. Marketers/manufacturers should begin a detailed evaluation of the supporting marketing and scientific data and determine if this term/trend offers a good strategic fit and is appropriate to pursue. Appropriate product development procedures should be undertaken.
- **Commercialization Phase** = Mass-market ready. Mainstream consumers have a significant degree of familiarity with the term/trend and there is opportunity for competitive advantage by getting out ahead of the competition or by providing a unique and highly innovative product positioning for success.