

Features Safe & Common Sense Solutions for Weight Management

By Lisa Olivo, Associate Editor | September 8, 2016

Consumer trends shift the category's focus from 'miracle' weight loss to holistic and practical weight control.



New attitudes about weight and eating habits are impacting how consumers attempt to manage their waistslines. Market research suggests that the pervasive obesity and overweight crisis in the U.S. is leading to some normalization of elevated body mass indexes (BMI) and, as a result, less desire for people to change their physique drastically. Rather, more consumers are steering their nutritional goals toward "weight management," instead of "weight loss," and are taking a more measured, common sense approach to nutritious eating and maintaining a healthy lifestyle.

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A report from the [Hartman Group](#), Bellevue, WA, titled "Weight Management & Healthy Living 2015," indicated a greater acceptance of being overweight compared to the 1950s, which is considered the inception of dieting culture. Perhaps this is because today most Americans are overweight (63%), while 32% are obese. The Hartman Group suggested that "obesity" is now considered the real enemy by consumers, while being overweight is more accepted and normal.

"Over the past 10 years, overweight and/or obese Americans have come to accept their weight status as defined by the CDC," said Laurie Demeritt, CEO of the Hartman Group. "This is a huge shift in self-awareness and in willingness to accept stigmatized terms like 'obese' as personal labels. When individuals accept that they have a problem like obesity, it forms the platform for actual behavioral change."

While the Hartman Group found that 56% of U.S. consumers are trying to lose weight, respondents reported seeing themselves as primarily responsible for their own weight and believed in taking a more holistic approach to managing it. Ms. Demeritt suggested, "Optimizing one's health, especially as one ages, is a primary driver of weight-management behavior. As a result, we have evolved from a weight-management culture of purely crash dieting to a culture more open to permanent dietary alterations along with a set of lifelong healthy guardrails."

In the quest for a more holistic and well-rounded approach to achieving a healthy weight, many consumers are looking to dietary supplements and other natural aids to help curb appetites and stimulate the metabolism.

[The National Institutes of Health Office of Dietary Supplements](#) cited data that found nearly 15% of U.S. adults have used a weight-

loss dietary supplement at some point in their lives, with more women reporting use (20.6%) than men (9.7%) (*Journal of the American Dietetic Association*, 2007). Furthermore, NIH indicated that Americans spend close to \$2 billion annually on weight-loss supplements (*Nutrition Business Journal*, 2014).

Commenting on the market, Lu Ann Williams, director of innovation for The Netherlands-based [Innova Market Insights](#), observed how the weight management category has changed drastically in recent years. “Now it’s all about healthy lifestyle; I think dieting is out and living in a healthy way is in. It’s about doing something better for your health over time, and I don’t see this trend going away soon.” She added, “I think supplements play a big part in this. When you need that extra boost—maybe it’s easier to get it in a supplement and it can help kick-start changes to your overall lifestyle.”

Category Crackdown

While supplements remain a popular option among consumers trying to reel in their weight, some nutritional products claiming to support weight loss have been criticized for making outlandish or unsubstantiated claims, while others have been found to pose health risks to consumers.

“The FDA considers weight loss products as a ‘high-risk’ category and there’s been a good cause for concern,” explained Lynda Doyle, vice president of global marketing, [OmniActive Health Technologies](#), Morristown, NJ. “There have been a lot of products sold as ‘magic bullets’ for weight management or using questionable ingredients with potential side effects. As the FDA/FTC scrutinize formulas and claims, the challenge to manufacturers has been to ensure their ingredients meet appropriate quality assurance requirements—DNA fingerprinting being the new kid on the block—and are backed by relevant science and safe.”

For suppliers, Ms. Doyle said this could potentially delay time-to-market opportunities. However, she views this as a blessing in disguise. “Manufacturers realize that to win back consumer confidence, science-backed formulas with proven efficacy and safety are necessary. And with greater FDA scrutiny in this category, manufacturers are evaluating the science first, and that can only lead to better formulas that prosper in this evolving market.”

Bruce Abedon, PhD, vice president of scientific affairs for [Icon Group LLC](#), Brattleboro, VT, also observed that a higher level of category scrutiny has led to more efficacious and thoroughly researched products. “Gone are the days when ingredients with questionable safety and efficacy could be peddled to consumers without repercussions, resulting in increased quality and effectiveness that has been a real plus to the industry,” he said. “Now, to be successful, weight management ingredients must possess adequate safety testing in both pre-clinical toxicology studies and human clinical trial research. They must offer significant efficacy as determined in one or more randomized, double-blind, placebo-controlled human clinical trials and the clinically efficacious dose is recommended to consumers in finished products containing these ingredients while ‘dusting’ is frowned upon.” He added that structure/function claims for ingredients must be substantiated and submitted to FDA in accordance with the Dietary Supplement Health and Education Act (DSHEA).

Furthermore, he observed that the weight management sector isn’t only focused on “weight loss,” but also enhanced health—or what he referred to as “weight wellness”—latching onto other weight-related consumer concerns such as cardiovascular health and glucose support.

Higher standards and transparency in raw material procurement and manufacturing have also bolstered the category, according to Dr. Abedon. Now, he said, “regulatory agencies know what is being sold and consumers know what they are buying.”

David Daguet, scientific manager with France-based [Nexira](#) suggested that increased regulatory scrutiny has enabled consumers to pay close attention to what they buy and to be more educated and cautious in their purchasing. “Today, the consumer is aware that there is no miracle product in terms of weight management; only products with scientific support and guarantees in terms of origin and food safety must be considered.”

To meet the needs of these enlightened consumers, ingredient suppliers in the weight management category need to be rigorous in their product development, explained Mr. Daguet. “They have to invest in clinical studies on their product’s efficacy and safety in order to present non-misleading marketing arguments,” he said.

To ensure the safety and quality of its food ingredient ID-aIG, Nexira has established specific and thorough product protocols. Mr. Daguet noted ID-aIG is a brown seaweed extract offering weight management support that is authorized for use in Europe, the U.S. and Japan, and does not require any Novel Food procedure. The raw material, marine brown algae, is carefully collected by hand and undergoes a “gentle extraction process.”

The seaweed extract used in ID-aIG is a natural source of iodine, so the company has established specific safety procedures to ensure safe levels of the mineral. “As other marine food sources (e.g., fish, shellfish, mollusks, algae), the seaweed extract from which ID-aIG is made is a natural source of iodine,” he explained. “In order to comply with regulations and guarantee a safe ingredient, Nexira performs a specific production process allowing to control each production batch and to guarantee, at the daily dosage of ID-aIG (400 mg/day), an iodine content below the Recommended Daily Intake (RDI = 150 µg/day according to regulations (EC: n°1169/2011 & U.S.: 21 CFR 101.9).

“Moreover, Nexira conducted additional tests according to rigorous protocol conditions to assess the toxicity risk, and these tests showed that ID-aIG could be considered safe,” he continued. “Clinical studies which allowed researchers to closely follow volunteers revealed that ID-aIG showed a high tolerability without any uncomfortable manifestation.” He noted that Nexira also conducted transaminases analysis (ASAT and ALAT), to demonstrate that ID-aIG is a safe product without any adverse effects on the liver, especially on the transaminases levels.

Marketing Responsibly

Accurately representing the benefits of weight loss and weight management products is a newly revitalized area of focus. In recent years, the FTC's "[Gut Check](#)" initiative raised awareness of unlawful claims made by noncompliant supplement manufacturers and marketers. Further, FTC has taken enforcement and legal action against numerous companies in the category, raising both industry and consumer concern.

The impact of this enforcement action is "winnowing out the unscrupulous predators who give this industry—and this category—a black eye," commented Mitch Skop, senior director of new product development, [Pharmachem Laboratories Inc.](#), Kearny, NJ. "For us and our marketing partners, there have been no challenges because we all market responsibly. Although government oversight in this case definitely helps, we need to continue to police ourselves to get rid of the shady opportunists who are only there to fatten their wallets—pun intended."

Steve Siegel, vice president of [Ecuadorian Rainforest](#), Belleville, NJ, cautioned manufacturers to take extra care not to make unfounded claims when marketing weight loss products. This practice, which he said has been pervasive in the past, has reached the end of the line. "Products would make outrageous weight loss claims to lure in consumers, but this also opened up the manufacturers to false advertisement claims," said Mr. Siegel. "With stricter oversight, effective products have been able to get ahead of the crowd. The other effect of this is that consumers became more knowledgeable about which products actually work and this helps keep expectations realistic."

Speaking for OmniActive, Ms. Doyle explained that before the company markets any new ingredient it follows a stepwise process that builds a dossier of science and safety. "Our continual investment in product development begins with sourcing, characterization and authentication (using processes such as DNA/HPTLC fingerprinting) to ensure species identification and a sustainable supply chain," she said. "It continues with nutrigenomic, toxicological, preclinical and clinical research to support efficacy, claim substantiation and safety. Our extraction, purification and application technologies provide ingredients with a level of quality and science reflective of our development process."

The company also boasts a robust clinical program with a pipeline of research to address pressing and evolving concerns of consumers, which also provide substantiation for claims. Ms. Doyle added, "At the end of this process our customers can be assured that our ingredients are supported by all the material needed to comply with the regulations and substantiated to address consumers' demand for effective products."

Innovative Ingredients

Leaders in the supplement industry are stepping up to assist the practical and informed choices consumers are making to better manage a healthy weight.

One natural ingredient, white kidney bean, has been established as a safe and clinically validated product to support weight management. Discussing the emergence of the "carb blockers" category, Pharmachem's Mr. Skop noted that Phase 2 Carb Controller, a proprietary extract of white kidney bean, has been the subject of research since the 1980s. "Phase 2 Carb Controller is an extract of the white kidney bean that focuses on a major cause of weight gain—excess consumption of carbohydrates," he explained. "Phase 2 temporarily binds with the enzyme that digests starch, alpha-amylase, allowing a portion of the carbs to pass through the system undigested. This action reduces the caloric impact of carb-rich foods and may assist in weight loss. Phase 2 is supported by over a dozen human studies demonstrating safety and efficacy." Additionally, Mr. Skop claimed that Phase 2 Carb Controller is the only weight control supplement with structure/function claims in the U.S. and Canada. It is Generally Recognized As Safe (GRAS) and made in the U.S. from non-GMO beans.

While four placebo-controlled human studies of Phase 2 (from 2001 to 2004) all demonstrated significant weight and inch loss with consumption, a 2013 study published in the journal *Obesity* found subjects taking PhaseLite (Phase 2 Carb Controller) lost an average of seven pounds more than those taking a placebo after 12 weeks. In addition, Mr. Skop noted, "73.5% of the participants in the weight management phase successfully maintained their body weight after 24 weeks. After 12 weeks, the active arm in the weight-loss study experienced a statistically significant decrease in their desire as well as in their frequency and strength of food cravings for chocolates and other sweet foods, whereas the placebo group experienced a significant increase in difficulty in resisting particular types of food."

Mr. Siegel of Ecuadorian Rainforest pointed to additional research validating the benefits of white kidney bean extract. A 2007 study published in the *International Journal of Medical Sciences* found that combining white kidney bean extract with a calorie-restricted diet led to significantly better results in both weight loss and fat loss compared to placebo. "Sixty overweight men and women participated in this double-blind, placebo-controlled study," he said. "Half took white kidney bean extract on a daily basis for two months. They maintained a 2,000 to 2,200 calorie, carbohydrate-rich diet during the course of the study. By the end of the study, the bean extract group had significantly higher decreases in body weight, BMI, fat tissue thickness, and waist and thigh circumference measurements as compared to the placebo group."

Promoting satiety through protein consumption has been a growing trend in the weight management category. Mr. Siegel referenced a 2008 study published in *The American Journal of Clinical Nutrition* that found introducing more protein in a subject's diet, along with regular exercise, significantly helped participants regulate body weight. "A great way to add protein to a diet along with several other essential nutrients is by using plant proteins," suggested Mr. Siegel. "Not only are plant proteins a great and affordable alternative to animal proteins, they also contain several other vitamins and minerals."

[Ingredient](#), Westchester, IL, offers several nutritional ingredients targeting the satiety trend, including HI-MAIZE resistant starch and

whole grain corn flour, as well as WEIGHTAIN, a proprietary heat-moisture treated (HMT) composite of HI-MAIZE whole grain corn flour and a hydrocolloid (guar gum). These ingredients have been clinically studied and found to contribute to healthy weight management, the company said.

A 2010 study published in the *British Journal of Nutrition* found that consumption of HI-MAIZE helped individuals eat 10% less food over 24 hours without being hungry. Also, in a study published in the journal *Food and Function* in 2014, WEIGHTAIN was added to a fruit-based smoothie and consumed as part of a breakfast meal. Results showed reduced ratings of hunger and increased ratings of fullness over the day and reduced food intake at lunch and dinner meals. Two additional clinical studies on WEIGHTAIN were conducted and are in the process of being published.

Prebiotic fiber derived from chicory root can also provide benefits for appetite regulation and weight control. [BENEO's](#) prebiotic chicory root fiber OraftiSynergy1 (oligofructose-enriched inulin) has been shown to lead to improved appetite regulation and decreased food intake in overweight and obese children.

A research team led by Professor Raylene Reimer from Calgary University in Canada evaluated 42 overweight and obese children between the ages of 7 to 12 years for 16 weeks. Results were presented at the American Society for Nutrition's Scientific Sessions at Experimental Biology 2015 in Boston. The study found that children receiving 8 grams daily of OraftiSynergy1 had significantly higher ratings in their feeling of fullness and satisfaction and a lower prospective food consumption, as well as significantly higher satiety ratings.

The children in the study were further presented with an *ad libitum* breakfast buffet, and the children supplemented with OraftiSynergy1 consumed about 100 fewer calories. At the conclusion of the trial the children taking the prebiotic had a significantly reduced BMI z-score compared to the control group. Researchers suggested that long-term intake of the prebiotic fiber OraftiSynergy1 could lead to reductions in energy intake with positive impact on body weight, as well as reduction in body fat and fat mass index.

Commenting on the study, Jon Peters, president of BENEO Inc., Morris Plains, NJ, said, "Childhood obesity is an increasingly important issue. Many of our global partners are focused on solutions in this area and in particular, the use of fibers in growing-up milks. Fibers such as inulin and oligofructose are contributing to the overall nutritional balance as a key element to children's health."

Researchers from the Department of Cardiology, Taizhou People's Hospital, Taizhou, China evaluated results of 25 randomized human trials, reviewing the impact of probiotic supplementation on the BMI and weight of more than 1,900 healthy adults. Analysis confirmed that probiotic consumption reduced BMI and body weight, particularly when used by overweight adults.

Further, it was determined that consuming more than one strain of probiotics, and taking them for eight weeks or more led to better results. While the weight reduction was relatively modest, researchers suggested this small drop in weight could have tremendous health benefits for consumers.

Stress can be a major contributor to weight gain by raising cortisol levels and triggering unhealthy eating habits. However, new research has found that ashwagandha supplementation may curb a range of outcomes associated with weight management under stress.

A randomized, double-blind, placebo-controlled study published in the *Journal of Evidence-Based Complementary & Alternative Medicine* examined the effect of KSM-66 Ashwagandha on 52 males and females between 18 and 60 years of age. Subjects were under chronic stress and moderately overweight, but otherwise healthy. After eight weeks, researchers found that subjects taking KSM-66 Ashwagandha had a substantial reduction in stress as indicated by psychometric scores and serum cortisol levels.

Commenting on the study, Kartikeya Baldwa, director of [Ixoreal Biomed](#), the maker of KSM-66, said, "It is well known that the ashwagandha root has significant ability to reduce stress and cortisol. On this basis, many practitioners have believed that the root should help combat some of the effects of stress and cortisol, such as reactive eating and the reliance on food as a coping mechanism. However, there was no direct evidence of this connection. This is the first study to show that ashwagandha can reduce food cravings and emotional eating mediated by stress relief."

Ms. Doyle of OmniActive said appetite control products, "fat burners" and supplements affecting body composition (reducing fat around the waist and/or hips) are mainstays in the weight management category. However, she observed that ingredients touching on multiple facets within the weight management category have great potential for success.

"OmniActive's Capsimax and OmniLean are market leaders because they support several endpoints of weight management in one formula," Ms. Doyle said. "Our approach has been to differentiate these products to address both current demands of consumers as well as new directions for healthy weight management."

Capsimax is a concentrated, highly active, natural capsaicin extract from red chili peppers made with patented OmniBead technology, encapsulated in a controlled-release coating. The company claimed the capsaicinoids in Capsimax support the mobilization of fats for energy production (a process called lipolysis), thermogenesis and appetite regulation.

Ms. Doyle referenced a recent study presented at Experimental Biology, which demonstrated that supplementation with 2 mg of Capsimax significantly reduced waist-to-hip ratios (WHR) in healthy subjects in as little as six weeks. "WHR is a ratio of the circumference of the waist to the hips. It indicates how fat is distributed in the body and is a better indicator for health and future health risk than just body weight alone."

OmniLean, on the other hand, addresses key factors for health such as dietary intake, metabolism and weight management. “From a dietary perspective, the essence of health pivots on caloric consumption and the body’s ability to metabolize carbohydrates and lipids effectively. OmniLean helps the body to effectively manage the glycemic/lipid impact of food that plays a role in effective weight management.”

She pointed to a recent study also presented at Experimental Biology that found OmniLean “helps reduce the early rise in blood glucose and insulin following a high-carbohydrate meal (slowing down the post-prandial hyperglycemic response) and thus significantly lowered insulin levels compared to placebo.”

Icon Group offers a select portfolio of proprietary ingredients for the weight management category, according to Dr. Abedon. For example, WellTrim iG is a patented, clinically tested African Mango (*Irvingia gabonensis*) seed extract intended to promote healthy weight management. Dr. Abedon said this extract works through “multiple mechanisms of action including satiety, appetite control and thermogenesis, as well as by blocking the conversion of blood sugar into stored fat through inhibition of the enzyme, glycerol-3-phosphate dehydrogenase. It has been evaluated in multiple clinical trials at both 300 mg once daily and 150 mg twice daily doses, which has resulted in significant improvements in the areas of weight, percent body fat, waist size and adiponectin, as well as LDL, triglycerides and blood sugar balance.”

The company’s Synetrim CQ is a patented, triple-action weight management ingredient derived from *Cissus quadrangularis*. The product is designed to reduce the absorption of dietary fat, carbohydrates and starch-derived sugar by limiting the activity of the fat-digesting enzyme, lipase, as well as α -amylase and α -glucosidase—enzymes that break down starch carbohydrates and starch-derived sugar. “It has been researched in three human clinical trials with significant weight management benefits occurring at doses of both 300 mg once daily and 150 mg twice daily, combined with improvements in blood lipid levels and glucose support,” said Dr. Abedon. “The level of serotonin also increased significantly in these studies, which indicates that Synetrim CQ can also help support mood-related overeating.”

Icon Group’s patent-pending, multifunctional formulation LeptiCore consists of plant-based polysaccharides, antioxidants and blue-green algae aimed to support satiety, appetite control, thermogenesis and antioxidant mechanisms of action.

Numerous studies conducted on Nexira’s ID-aIG seaweed extract have demonstrated its natural properties to control caloric intake by limiting both carb and fat absorption. “*In vitro* studies showed that long-chain polyphenols block the activity of the two main digestive enzymes, inhibiting by more than 50% both lipase and amylase activity,” explained Mr. Daguet. “By inhibiting the two main digestive enzymes, ID-aIG is able to reduce the caloric intake by reducing the efficiency of the digestion. This action offers an efficient alternative for weight-management as confirmed by *in vivo* and clinical studies.” He also said that the fat-mass reduction was highly tolerable, with no discomfort reported.

Diverse Demographics

As weight issues impact a large portion of the global population, it makes sense that weight management products are formulated to meet the needs of a diverse range of consumer demographics.

When asked which consumers are most interested in weight management Mr. Skop of Pharmachem commented: “Well, just about everyone, really. There are women who want to lose the baby weight, folks who want to shed a few pounds to look fabulous for a major event, those who have had medical scares and have avowed to change their lifestyles, and athletes gearing up for a new season or upcoming tournament.” This is why the category is ripe for new product launches in Mr. Skop’s view—the variety of reasons motivating consumers and the varying amounts of weight they are looking to shed.

Ms. Doyle believes the demographic for weight management products is changing to reflect consumer understanding of weight management and health. “Consumers’ perceptions about weight management is changing because they are constantly reminded of the role diet, carbohydrates and fats play in weight management, and because of that they are replacing their notion of short-term weight loss with a commitment to a healthy lifestyle that includes metabolic health. But they often struggle—whether it’s because of selection fatigue (i.e., not knowing which products to take) or compliance (e.g., too many pills or high dosages). So, the new weight management consumer isn’t just looking to lose inches off their waistline—they want to support both a healthy weight and also a healthy lifestyle. For supplement companies, that means providing a more comprehensive formula to address these needs while being convenient to take.”

Once dominated by women of all ages, Dr. Abedon observed a growing male interest in weight management supplements in recent years. The sports performance sector is also a new area of growth. “These athletes are concerned not only with strength and stamina, but are now also interested in becoming trimmer and leaner to help reach their sports-related goals.”

Noteworthy Trends

As demand for weight management supplements evolves, new and noteworthy trends are emerging in the category. For example, Dr. Abedon noted the shift away from stimulant-based ingredients, which were once very popular in the space.

“The new trend is away from stimulant-based ingredients that may help with short-term weight loss through calorie burning, but do so in a manner that does not promote health and wellness,” he said. “Now, ingredients that possess superior efficacy along with comprehensive safety profiles, and multiple mechanisms of action are sought after.” These desired mechanisms include support for satiety and appetite control, lipase inhibition and carb control, as well as support of thermogenesis and enhanced mood, he added.

Approaching weight management from the perspective of metabolic health is also gaining interest among consumers, according to Ms. Doyle. “Consumers are looking less for just ‘weight loss’ products and more for products that also address factors that contribute to or

are affected by weight, like healthy carbohydrate and fat metabolism and cholesterol levels. They're looking for a comprehensive and simple approach to address these key concerns." This, she said, is why OmniActive's OmniLean is appealing: "because it addresses this shift in consumers' perceptions about weight management and health. OmniLean is called the 'metabolic synergizer' because it supports the premise that healthy weight starts with healthy metabolism."

Mr. Daguet sees the weight management market as increasingly segmented, which he believes will become more pronounced, depending on age, gender, BMI and lifestyle. "Scientific works will have to be more detailed and rigorous," he said, "in order to guarantee efficacy, safety, tolerability and quality."

Future Expectations

As more consumers look to make healthy choices to improve their weight, the category is expected to continue growing.

"With current trends in the market being what they are, the weight management market is estimated to be worth \$206.4 billion by 2019, according to Markets and Markets," noted Mr. Siegel. "More and more of these consumers will start being drawn to natural ingredients that may help them manage their weight. Be it with fiber for fullness, caffeine for energy, or vitamins and minerals to round out their diets, these consumers will gravitate toward products that will help them maintain their ideal weight naturally."

Ms. Doyle predicted the category would continue to "legitimize" as more companies offer products backed by sound scientific research. "Because of that, consumers' trust will continue to build. After years of selling promises and magic bullets we still have a long way to go, but the industry is on the right track."

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