



# Nutritional and Dietary Supplements: Understanding Consumer Preferences

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Nutraceutical products are designed to promote health and well-being by providing essential nutrients, vitamins, minerals, herbal extracts, and other bioactive compounds that offer health benefits beyond basic nutrition.

Consumers are increasingly seeking natural and preventive healthcare solutions to address wellness, from maintaining overall vitality to managing chronic conditions. This shift in consumer preferences, especially since the pandemic, has prompted a surge in demand for nutraceutical products that offer a range of health benefits.

## The Nutraceuticals Market An Overview

Geographically, the nutraceutical market is not limited by borders, with demand rising in both developed and emerging economies. The market is forecast to continue growing around 5% year on year with multiple factors contributing to this growth.<sup>1</sup>

## Key Growth Factors:

- Innovations in product formulation and delivery systems
- Rising healthcare costs
- Aging population seeking products that support healthy aging
- COVID-19 pandemic, which has emphasized the importance of a robust immune system, driving interest in immune-boosting nutraceuticals.

The rise in supplement demand is primarily fueled by probiotics, omega-3 fatty acids (like fish oils), and protein supplements. In addition, herbal and botanical supplements have gained popularity as complementary and alternative medicine options alongside conventional treatment. This trend underscores the shift towards holistic health and well-being, where the synergy between traditional and natural approaches to health management continues to expand.

Rising consumer awareness regarding the severity of digestive disorders stimulates the growth of the Enzymes segment and Nutraceutical products aimed at improving sleep and managing stress remain extremely popular. Overall, there is a clear need to balance demand with quality ingredients, efficacious formulas and science backed delivery formats.

### Dosage Form Trends

There are now multiple dosage form options for nutraceutical products, each targeting distinct consumer preferences and needs. Understanding the drivers of increasingly well-educated consumers is crucial for nutraceutical manufacturers and marketers, as it can significantly impact product success, brand selection and consumer satisfaction. As a result, the nutritional industry now faces a higher level of customization than ever before.

Traditional options include capsules and tablets, whilst alternative formats such as gummies, powders, and beverages, have grown in popularity. However, each dosage type comes with its own pros and cons and over the past 5 years, there have been changes in dosage form trends aimed at extending the popularity and applicability of each.

The overall number of capsules, including softgels and hard capsules, launched each year currently represents about half of all new nutraceutical products. The gummy dose form now accounts for about 10% of new launches globally, while tablets remain popular, hovering around 15% of new launches.<sup>2</sup>

Regional variances exist in trends, along with distinctions between age groups and differences between new and existing food supplement consumers.

In the USA, there is a growing popularity of non-traditional pill formats like gummies as consumers have sought more fun and flavorful format options, which may also reduce pill fatigue and improve compliance (Figure1).

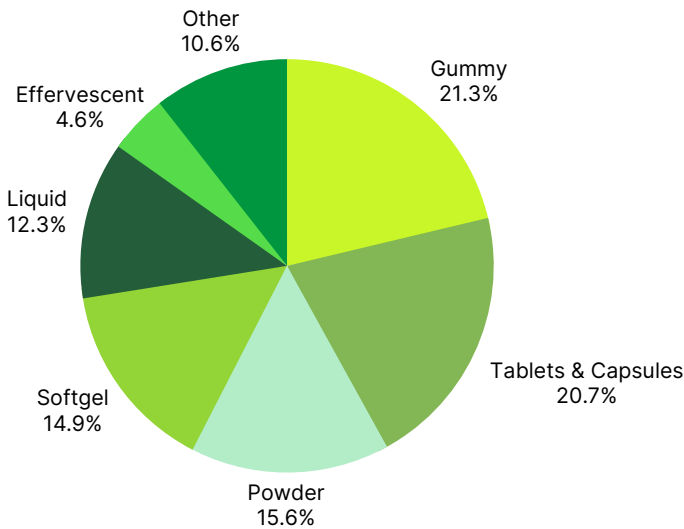


Figure 1 2021 Breakdown by Nutra Dosage Form Taken in USA<sup>3</sup>



### Important Attributes for Consumer Preference

When nutritional supplements are palatable, easy to take and taste good, individuals are more likely to adhere to their dosing schedules. Unpleasant tasting or difficult to swallow supplements can discourage people from taking them regularly, which can lead to indifference to the brand, no repurchase, and inconsistent or incomplete intake.

Attributes that consumers value the most when choosing tablets are swallowability, format, taste, and size:

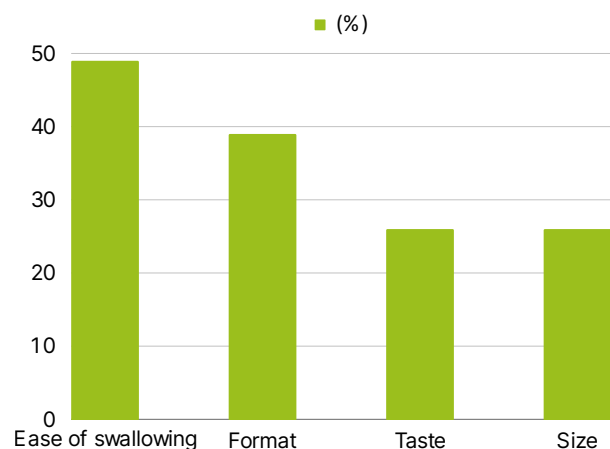


Figure 3 Delivery Form Preference (CRN Consumer Survey, 2020)<sup>5</sup>

Manufacturers obviously need to carefully design their dosage forms with these attributes in mind.

### Why Size is Important for Nutraceuticals

For dose forms that are intended to be swallowed whole, rather than dispensed or chewed, the size of the product itself has a big impact in five main areas:

1. **Comfort and Safety:** Smaller sized tablets are easier and more comfortable to swallow, reducing the risk of choking or discomfort during ingestion. This is especially crucial for individuals with swallowing difficulties or for children who may struggle with larger tablets.
2. **Accessibility:** Many consumers, including the elderly and individuals with certain conditions, may have limited dexterity or coordination. Very small tablets may be difficult to handle and manipulate.
3. **Adherence:** Consumers are more likely to continue with regimens when the tablets are of a manageable size. Large, hard-to-swallow tablets may result in the consumer not taking the tablet.
4. **Psychological Factors:** Tablet size can influence perception, with smaller tablets perceived as more user-friendly, potentially improving consumer confidence
5. **Medical Conditions:** Patients with certain medical conditions, such as dysphagia (difficulty swallowing), esophageal disorders, or gastroesophageal reflux disease (GERD), may find it challenging to swallow larger tablets.

Tablets or pills remain the largest number of dosage formats taken due to availability, familiarity, and preference. However, gummies grew 44% between 2019 and 2020, making them the fastest growing format in vitamins, minerals, and supplements, especially for new nutraceutical product consumers.

In Brazil, nutraceutical consumers trend towards capsules while in Europe, especially in Germany, tablets remain the most popular dosage form (closely followed by capsules). There is a tendency for consumers to believe that products in tablets format have higher efficacy and they are well known and trusted. However, there is a growing interest in gummies among younger users (Gen Z) and women – which is potentially linked to the prevalence of this format in beauty related products, especially in the UK.

In France, it is typical for consumers to focus on products that present functional, organic, and “greener” ingredients rather than the more playful experience of the dosage form itself and therefore, SoftGel and hard-shell capsules, and coated tablets remain the most prevalent dosage forms (Figure 2).

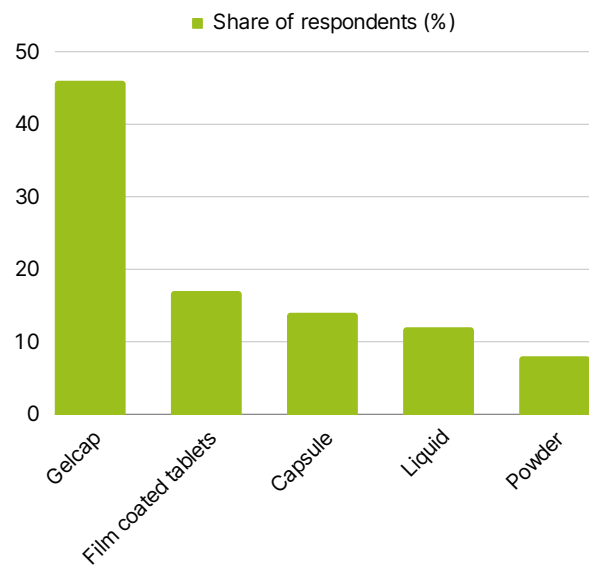


Figure 2 Preferred Consumer Format in France (Omnibus Survey, Statista, 2022)<sup>4</sup>



Elsewhere in the world, a 2021 change to China's supplement regulations lead to the rapid growth in alternative supplement formats. Tablets maintained their status as the leading format, but alternative forms are now replacing capsules and powders, which had previously been the second and third most prevalent new product formats launched. Chews and gummies jumped from 2.6% of supplement launches in 2020 to 17.6% in 2021 due to their popularity with consumers for better taste, smell, appearance and mouthfeel.<sup>3</sup>

In summary, tablet size is a crucial consideration for consumers when it comes to both perceived and actual ease of swallowing. Smaller tablets enhance comfort, accessibility, and overall adherence, making them a preferred choice for a wide range of individuals.

For the adult population, tablets weighing 300 to 450 mg with an oval or caplet shape offer an ideal balance for ease of handling and swallowing. However, this size might not be achievable with active nutraceutical ingredients that are formulated at a high dose.

Careful selection of excipients to balance tablet properties with size, along with addition of a suitable coating to aid swallowability will provide a consumer-friendly dosage form.

For children, typically, smaller tablets are more acceptable than larger ones, with caplet being the most popular shape.

## The Value of Color

Color is not just a matter of aesthetics; it has practical implications for consumers:

1. **Brand Recognition and Preference:** Color can be a key recognizable brand attribute and can help consumers identify and put their trust in a particular manufacturer or brand. This can be important in the nutraceutical industry, where brand loyalty and trust are crucial for repeat business.
2. **Identification and Safety:** Nutraceuticals come in different strengths or formulations and may be taken in conjunction with prescribed medications. Using distinct branding, with color and shape, helps consumers quickly identify the right tablet and reduces the risk of taking the wrong tablet or dose.
3. **Psychological Impact:** The color of a medication has a psychological impact on the consumer. For example, warm colors like red and orange may convey a sense of energy and vitality, which might be suitable for a tablet that is meant to boost mood or energy levels. On the other hand, calming colors like blue or green may be more appropriate for tablets designed to reduce anxiety or promote relaxation.

4. **Pediatric Appeal:** Children often have strong color preferences, and using appealing color can help reduce the resistance some children may have towards taking supplements; although, there is a need to avoid an overattractive confectionery look.

It is important to note that the color chosen for dietary supplements is usually more about marketing and consumer perception than because of any specific scientific rationale. The choice of color can help distinguish one product from another in a competitive market.

Ideal colors vary by demographics and can differ depending on region, gender, and age group. In warmer climates, earthy tones are preferred whilst consumers in colder areas, favor colder and muted shades.

When it comes to making a memorable tablet, color is without doubt the most important aspect. Color also improves brand recognition – just think of Viagra with its iconic blue color (and memorable diamond shape), and in the USA where the acid relief medication NEXIUM is commonly referred to as 'the purple pill'.

Some people associate dark tablets with being taken at night and lighter tablets being taken in the day. A good example of this is day/night cold remedies, where yellow for day and blue for night are used.

At Colorcon, the highest selling film coatings sold to nutritional companies (by volume) are white, yellow, and orange. Not surprising since yellow and orange are often associated with happiness and energy. It is recommended that companies conduct consumer research to establish perceptions prior to selecting a color. that companies conduct consumer research to establish perceptions prior to selecting a color.



## Taste and Flavor

Primary considerations for a first-time nutraceuticals' buyer include pricing, product availability, and taste preferences. It is important to note that like color, taste preferences can vary based on factors like age, gender, and geographic location.

Millennials tend to prioritize flavorful options, while boomers are more focused on selecting supplements that support healthy aging or anti-aging and long-term health benefits rather than prioritizing taste.

Certain flavors have a significant impact on consumers' nutraceutical choices. Familiar flavors such as orange, lemon, strawberry, and vanilla, as well as flavors associated with health, play a significant role in positively influencing consumer preferences.

When it comes to fruit flavors, berry and summer fruit flavors are particularly appealing to consumers seeking feelings of cheerfulness, happiness, relaxation, or overall health. On the other hand, citrus flavors tend to be preferred when consumers seek comfort and a sense of well-being.<sup>6</sup>

## Overcoming Bad Odor

The sense of smell is closely linked with taste and unpleasant odors can deter consumers from taking or repeat purchasing a product. Foul smells are often associated with low-quality or a product that has "gone off" which can decrease consumer trust and reduce the likelihood of repeat purchase.

Eliminating or masking an unpleasant odor, can contribute to the overall perception of the product's effectiveness and provide a positive consumer experience, and some manufacturers have incorporated enteric coatings and specialized outer shells to delay the breakdown of capsules until they have passed through the upper digestive system, and are then less likely to cause reflux or, in the case of Omega-3 supplements for example, 'fishy burps'.

## Put the Consumer First

In this era of heightened health consciousness and a growing preference for natural and holistic approaches to well-being, the global nutraceutical market is poised for sustained growth and innovation.

There is not a one-size-fits-all when designing nutraceutical products. While tablets and capsules remain large volume dosage forms overall, in certain parts of the world and especially for new consumers, a preference for dosage forms such as gummies is rapidly growing.

Successfully navigating the complex landscape of the global nutraceuticals market demands a well-considered approach from both nutraceutical manufacturers and brand owners. Critical decisions regarding the selection of color and taste for new product launches should be made with insights of the geographical, gender, and age group variations within the target demographic.

By balancing these elements, manufacturers can optimize their product and create a better consumer experience to truly stand out amidst the competition.

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