



THE FACTS ABOUT

# Bottled Water

BROUGHT TO YOU BY THE INTERNATIONAL BOTTLED WATER ASSOCIATION

## Stringent Regulation: A Key to Bottled Water's Safety, Quality and Good Taste

One of the untold stories about bottled water is the stringent federal, state and industry standards that bottlers must follow to provide consumers with the safest, highest quality product possible.

The U.S. Food and Drug Administration (FDA) highly regulates bottled water as a packaged food product and requires bottled water to follow FDA's extensive food safety, labeling and inspection requirements. By law, the FDA Standard of Quality for bottled water must be as stringent as the U.S. Environmental Protection Agency's (EPA's) standards for public drinking water. In several cases, FDA bottled water standards are more stringent than EPA standards for public drinking water.

Several layers of federal regulation and standards help ensure bottled water's quality and safety. Along with FDA's general food Good Manufacturing Practice regulations (GMPs), bottled water has several other applicable regulations, including a Standard of Identity, a Standard of Quality and specific bottled water GMPs. Bottled water is one of only four packaged food products, including baby formula,

subject to additional distinctive GMPs.

Bottled water is also subject to state regulations, some of which are even more stringent than federal standards. One of the significant responsibilities of states is to inspect, sample, analyze and approve sources of bottled water. Another area where some states have important responsibilities that complement federal regulations is the certification of testing laboratories.

The International Bottled Water Association (IBWA) requires its members to follow the IBWA Model Code, a set of mandatory standards that, in several cases, are stricter than FDA, EPA or state drinking water standards. All IBWA bottler members are subject to an annual, unannounced plant inspection by a



nationally recognized, independent third party organization.

Consumers may not think about stringent federal, state and industry regulations when they enjoy bottled water. But they can rest assured that these high standards are in place when they enjoy the consistent safety, quality and good taste of bottled water.

## Bottled Water: Learn the Facts

**Bottled water** is now one of America's most popular beverages, yet it is also one of the least understood. Very few people are aware of the stringent regulations that govern the bottled water industry and the care that goes into every step of the product's path to market.

In this special insert sponsored by the International Bottled Water Association (IBWA), we tell the story about how bottled water is **regulated** and the value-added measures that bottlers take to help ensure **consistent safety, quality and good taste**. We also look at the reasons for bottled water's tremendous growth, its role in a healthy lifestyle, and other factors that make it a leading consumer beverage-of-choice.

IBWA members share a passion for providing consumers with **high quality products** and continually embrace new innovations to provide safe, great tasting water and to meet the changing needs of the marketplace. And because IBWA members know how important clean water is to the human health and the environment, they are committed to **environmental stewardship** as well as community service and disaster relief programs.

IBWA is proud to represent the bottled water industry, a diverse group of bottlers, suppliers and distributors ranging from family-owned small businesses to multi-national corporations. We encourage you to take a moment to read this insert and visit our web site at [www.bottledwater.org](http://www.bottledwater.org) to learn more about the bottled water industry's ongoing quest for excellence.

The International Bottled Water Association is the authoritative source of information about all types of bottled waters. Founded in 1958, IBWA member companies account for more than 80 percent of all bottled water sales in the U.S. IBWA's membership includes U.S. and international bottlers, distributors and suppliers. IBWA is committed to working with state and federal governments, in concert with the **IBWA Model Code**, to set stringent bottled water standards for safe, high quality products. Consumers can contact IBWA at **1-800-WATER-11** or log onto IBWA's web site ([www.bottledwater.org](http://www.bottledwater.org)) for more information about bottled water and a list of members' brands.

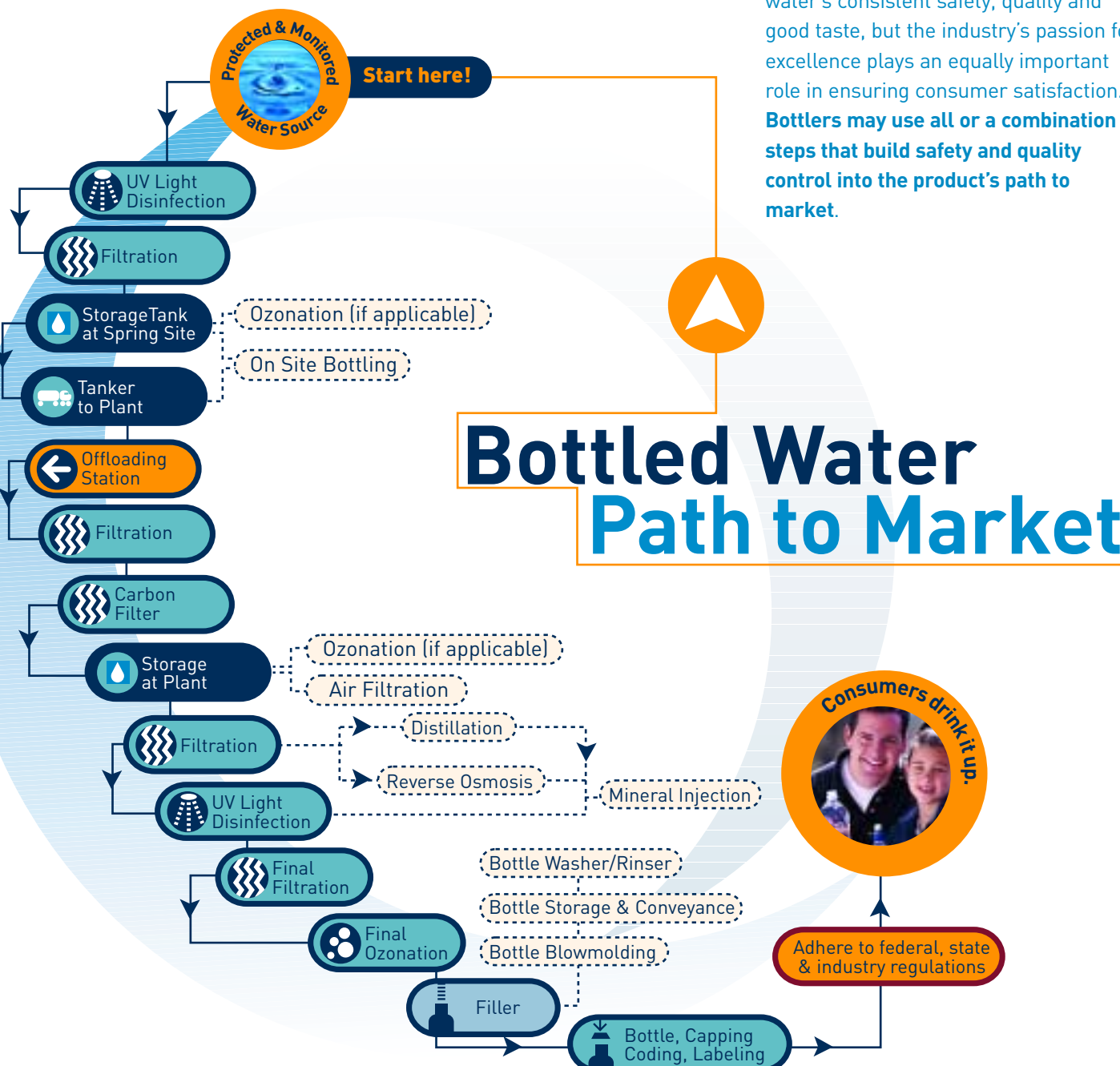


### Inside

Find out more about bottled water • industry growth • safety and quality control • hydration • and other interesting facts

## A Passion for Excellence

Stringent federal, state and industry regulations are instrumental in bottled water's consistent safety, quality and good taste, but the industry's passion for excellence plays an equally important role in ensuring consumer satisfaction. **Bottlers may use all or a combination of steps that build safety and quality control into the product's path to market.**



## Bottled Water Path to Market



# Bottled Water

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## Bottled Water: A New Paradigm?

By John Rodwan, Beverage Marketing Corporation

**It may seem only intuitive to compare bottled water with public water and wonder why folks buy the former when the latter is available. Yet millions of Americans have adopted a new view and have made bottled water a mainstream refreshment beverage more comparable to other beverage types, such as diet soft drinks and sports beverages, than to public water.**

U.S. consumers have demonstrated their willingness to spend their dollars – billions of them, in fact – on bottled water for its consistent safety, high quality and good taste. In 2000, bottled water companies sold \$5.7 billion-worth of bottled water and we are projecting at least a 10 percent

increase for 2001 resulting in bottled water sales well over \$6 billion.

Consumers reportedly choose bottled water for its taste and purity. Bottled water in the smallest package sizes (1.5 liters and smaller) comprise the fastest growing segment of the quick moving bottled water category, growing at double-digit rates throughout the 1990s. The availability of water in convenient containers on store shelves, in vending machines, in dispensers at home and at work – in short, wherever thirsty consumers happen to be – is a strong aspect of the industry's growth. Convenience, coupled with consumers' desire for healthy beverage alternatives, has made bottled water's phenomenal performance possible.

But in the home and office, the large water cooler size continues to prosper and grow, albeit at a slower rate than its small size counterpart. Consumers continue

to use the water cooler at home and at work because it is a way to enjoy high quality, good tasting water in a convenient, larger size bottle.

Bottled water also represents an alternative to other packaged beverages, such as soft drinks, which saw per capita consumption decline in 2000. The U.S. absorbed more than 5 billion gallons of packaged water in 2000, which works out to more than 18 gallons per person. While this is far less than the average intake of carbonated soft drinks (nearly 56 gallons per person in 2000), bottled water is shrinking the gap, and, if trends persist, could surpass staid, mature milk and established, stable beer to become the second most consumed commercial beverage in the U.S. within just a few years.

In sum, the bottled water industry, made possible by beverage companies' packaging, distribution and marketing infrastructure,



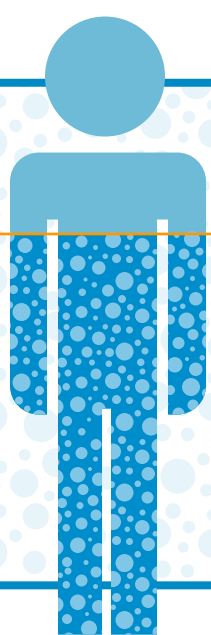
**Joël Antunes, Chef-Owner, Joël**

"Just as you want bottled water's consistent quality and good taste as a beverage, you also want those qualities when using water as an ingredient. At Joël we make sure to use bottled water in uncooked dishes such as gazpacho and sorbet. And it looks nicer on the table when presented in a glass."

provides consumers with convenient, healthful, highly portable, versatile products.

*John Rodwan is Editorial Director at Beverage Marketing Corporation ([www.beveragemarketing.com](http://www.beveragemarketing.com)), a New York-based research and consulting firm.*

60%



### Facts About Water

**Water is the single most abundant substance in the human body, making up to 60 percent of an adult's weight and up to 80 percent of an infant's weight.**

**A person can live several days without food, but just a few days without water. Like air, water is essential to life.**

**Because water is so important, health and nutrition experts recommend drinking at least two liters of water each day. This makes bottled water a convenient way to help ensure that enough water is consumed at home, work or wherever a person may be.**



#### Staying Healthy

Water works to moisten lungs, convert food to energy, carry nutrients and oxygen into the body, lubricate joints, protect and cushion tissues and vital organs, regulate body temperature, metabolize fat and carry away body wastes.

#### Sports

Drinking water replaces fluid lost from perspiration during exercise, and convenient sport caps make it easy to drink on the treadmill or between stations at the gym.

#### Cooking and Entertaining

Bottled water provides an alternative to beverages that contain sugar, caffeine or alcohol, and its good taste makes it the perfect ingredient for recipes and beverages that call for water.

#### Traveling

Bottled water's convenience and portability make it perfect for travel, whether it's in the car, at the beach, or on business travel to help avoid dehydration from dry air on planes and in hotels.

#### Hot Weather

Dehydration can be fatal if it progresses into heat exhaustion or heat stroke, which makes it especially important to drink plenty of water during the hot summer months.

### Year-Round Refreshment for All Occasions and All Ages

#### Cold Weather

The colder it is outside, the harder your body must work to maintain proper body temperature, and that extra energy requires more water. Water helps you stay warm by helping to regulate body temperature.



#### Parents

It's up to parents to make sure their children drink enough water each day. Drinking water may help reduce the chances of childhood obesity.

#### Seniors

As people get older, their "thirst signals" decline, so it's important for seniors to drink enough water even though they may not feel thirsty.

#### Students

Bottled water is easy to carry in a lunch box or backpack to school, sports or activities.



## Listen to What the Experts Have to Say About Water!

### From *Family Fun Magazine*, Cornell University Medical Center

Approximately 70 percent of preschool children drink no water at all during the day. Young kids who don't drink enough water may suffer from fatigue or constipation.

### U.S. Department of Agriculture

To combat dehydration, have your child drink an eight-ounce cup of water for every 250 calories he consumes. If your child takes in 1,500 calories a day, he should drink at least six cups, or 48 ounces, of fluid. This goes for adults, too!!

### University of Washington

One glass of water shut down midnight hunger pangs for almost 100% of the dieters studied in a University of Washington medical study.

### Council for Jewish Elderly

Dehydration is a common cause of hospitalization and death among seniors. Researchers found that nearly 197,000 Medicare recipients were hospitalized with dehydration as a principal cause in 1991, costing Medicare more than \$446 million in hospital payments.

### American Dietetic Association

On average, an adult's body weight is made up of about 10 to 12 gallons of water (about 55 to 75 percent of body weight) while an elderly person's body weight is only about half water. But, when exposed to extremely high temperatures, the human body requires even more water to maintain its normal temperature.

### H<sub>2</sub>O Habits Leave Americans Half Empty

73%

know health and nutrition experts recommend drinking eight 8-ounce servings of water each day.



51%

admit to drinking less than the recommended daily amount.

[source: Yankelovich survey of 2,818 Americans.]

### The IBWA Model Code

Members of the International Bottled Water Association (IBWA) must adhere to the IBWA Model Code, a set of mandatory standards to help ensure the production of safe, high quality bottled water. IBWA Model Code standards are, in several cases, more stringent than federal and state rules and include an annual unannounced plant inspection by an internationally recognized, independent auditing and compliance firm. These inspections are performed every year at every member plant and document compliance with federal, state and IBWA standards.

### Some Steps That Can Be Found in the Path to Market

## Bottled Water: A Rigorous Approach to Quality

By Loren Merrick, NSF International

**Bottled water is a highly regulated food product in the United States. As a packaged food product regulated by the U.S. Food and Drug Administration (FDA), both the source water and the finished product must be tested annually for nearly 100 different chemical parameters.**

International Bottled Water Association (IBWA) members must also test their bottled water product daily to microbiological standards and chemical requirements to help ensure products meet these stringent standards. Product tasting is often performed during production to help assure the consistency and aesthetic quality of the product.

In fact, the bottled water industry maintains an exceptional commitment and adherence to quality control programs, resulting in a safe, high quality product for consumers.

The source of the bottled water must be from a protected natural source, or in the case of some processed waters, from an approved municipal supply. While there are several processes and steps that can be used in bottling water, all processes utilize a sealed, protected system. All elements of the system have documented cleaning, sanitizing and maintenance procedures. The separated filling rooms have filtered air, and have sealed walls and doors that are constructed to be easily cleaned. The daily cleaning and sanitizing is documented.

IBWA member bottling plants are sanitary, well maintained facilities where multiple barriers of protection are in place, whatever the product type. All IBWA bottler members must meet the quality requirements of the FDA, states and the IBWA Model Code, which is a strict set of standards and practices that, in several cases, is more stringent than FDA and state bottled water standards. In fact, some states utilize the IBWA Model Code as the basis, or "model" for their bottled water regulations and standards.

How can the public be assured that these strict IBWA controls are in place? Since 1985, NSF International, an independent, not-for-profit testing and certification organization has performed annual unannounced inspections at each and every IBWA member bottler plant and documents compliance with the strict quality control requirements. These inspections occur every year and assure that IBWA bottler members meet federal, state and IBWA requirements for the production and sale of bottled water. For more information on NSF, visit the NSF International web site ([www.nsf.org](http://www.nsf.org)).

*Loren Merrick is the Business Unit Manager of the bottled water program at NSF International. NSF is an international, not for profit testing and certification organization with programs in over 70 countries around the world. NSF International is a WHO collaborating center for food and water safety.*



Testing & Monitoring



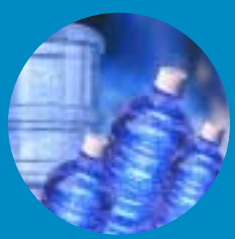
Filtration



Ozonation



Bottling



# Bottled Water

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[www.bottledwater.org](http://www.bottledwater.org)



## Bottled Water: Beverage of Choice, Relief in Times of Need

While bottled water is enjoyed year-round by millions of consumers as their beverage of choice, it also provides a source of safe drinking water in times of need. In the event of an emergency or crisis, the bottled water industry is always on the front lines, providing needed relief nationwide and around the globe.

In communities devastated by natural disasters such as hurricanes, blizzards, floods or other events that may affect a public drinking water system, the bottled water industry is the first on the scene with clean, safe water for drinking, cooking and other personal uses. Bottled water companies are reliable members of the community and are proud to help ensure that their neighbors do not lack the basic necessity of water.

In the aftermath of the tragic September 11 terrorist attacks, bottled water companies

responded immediately by donating several million bottles of water to emergency and rescue crews at crash sites in New York, at the Pentagon, and in Pennsylvania. Within hours of the first attack, bottled water was delivered where it mattered most: to emergency personnel on the scene who required ample water to stay hydrated as they worked to rescue victims and clean up debris. Long after the initial events of September 11, members of the International Bottled Water Association (IBWA) continue to supply precious bottled drinking water to the men and women charged with the recovery efforts in the aftermath of these terrible events.

Whether by choice or by necessity, bottled water can be counted upon for safety, high quality and refreshing good taste.

## Hydration 101: The Case for Drinking Enough Water

By Barbara Levine, R.D., Ph.D.

Next to oxygen, water is the human body's most important nutrient.

Yet 75 percent of Americans are chronically dehydrated and fail to drink the eight, 8-ounce servings of water per day recommended by health and nutrition experts.

Here are the key facts on why it's important to ensure you're properly hydrated.

- Water plays a vital role in regulating body temperature, transporting nutrients and oxygen to cells, removing waste, cushioning joints and protecting organs and tissues.
- Water's ability to dissolve a multitude of substances allows our cells to utilize valuable nutrients, minerals and chemicals in biological processes, and water's surface tension enables our body to mobilize these elements efficiently.
- Up to 60 percent of the human body is water, the brain is 75 percent water, blood is 82 percent water, and lungs are nearly 90 percent water.
- The body loses water via the skin by perspiration, kidneys by urine, lungs by exhaled water vapor, and intestine by feces.
- At normal activity levels, people lose two-three cups of water a day in perspiration. But during an hour of vigorous exercise, people sweat out approximately a quart of water.
- Deep yellow or amber colored urine can be a sign of dehydration.

With all that in mind, here are five tips for maintaining proper hydration:

- Don't wait until you're thirsty to drink water. By the time you feel thirsty, you probably have already lost two or more cups of your total body water.
- Don't substitute caffeinated coffees, teas, sodas or alcoholic beverages for water. Caffeine and alcohol can act as diuretics, causing you to lose water through increased urination.
- Don't underestimate the amount of fluids lost from perspiration. You need to drink two cups of water for each pound lost following a workout.
- Start and end your day with a serving of water. Your body loses water while you sleep.
- When it's warm outside, cold water is the best fluid for keeping hydrated. Cool water is absorbed much more quickly than warm fluids and may have a positive effect on cooling off your overheated body.

*Barbara Levine, R.D., Ph.D., is Director of the Nutrition Information Center at the New York Hospital-Weill Medical College of Cornell University.*



## Emergency Preparedness: Don't Forget the Bottled Water

According to the Federal Emergency Management Agency (FEMA), storing water is one of the most important things that a family can do to prepare for an emergency or disaster. Whether storing provisions in preparation for a natural disaster, such as an earthquake or blizzard, or for emergency preparedness in the face of potential terrorist attacks, bottled water is an excellent choice to satisfy a person's need for water for drinking and personal hygiene. Along with batteries, non-perishable food, flashlights and other emergency items, water is a crucial provision to keep on hand.

FEMA recommends that consumers store at least one gallon of water for each person for each day for drinking, cooking and personal hygiene (such as brushing teeth). And, don't forget extra water for pets. FEMA recommends that families maintain at least a three-day supply of water and other emergency provisions.

The U.S. Food and Drug Administration (FDA), which regulates bottled water as a packaged food product, has not established a shelf life for bottled water. The International Bottled Water Association (IBWA) advises consumers to store bottled water at room temperature (or cooler), out of direct sunlight and away from solvents and chemicals such as gasoline, paint thinner, household cleaners and dry cleaning chemicals. Bottled water can be stored indefinitely with proper handling.



## How much of the earth's ground water is used for bottled water? It's a drop in the bucket.

Bottled water accounts for only .0003 percent of the 79.4 billion gallons of water withdrawn from ground sources each day. Source: U.S. Geological Survey

- The amount of groundwater withdrawn in America by the bottled water industry is statistically insignificant and dwarfed by that of other industries such as energy, agriculture, and food processing and manufacturing.
- As part of the State permitting process, bottlers are required to perform extensive hydrogeological testing and continued monitoring to ensure no adverse impact on source or surrounding water features.
- One hundred percent of bottled water is produced for human consumption.
- An average total of 4,533 gallons of water per person is used to produce and grow the foods used to prepare meals consumed in a single day. It takes 209 gallons to produce breakfast foods, 1,427 gallons for lunch, and 2,897 to produce foods consumed at dinner.
- A person who drinks the recommended eight eight-ounce servings of bottled water per day consumes a half-gallon of water, or .0001 percent of the 4,533 gallons of water needed to grow and produce the foods and beverages a person consumes each day.