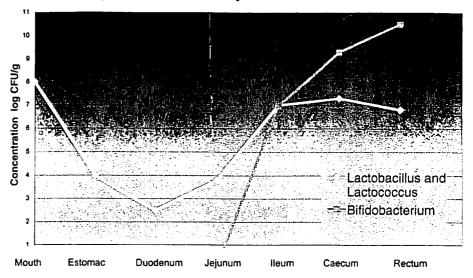
# Gut Buddies®

#### DID YOU KNOW...

Your body is home to ten times as many bacterial cells as human cells. That's right! The human body contains around 10 trillion human cells, while our gut, lungs, and skin are home to a whopping 100 trillion bacterial cells, from over 500 different species. Where did these bacteria come from? And what are they doing inside our bodies?

Babies are born with a gastrointestinal tract essentially free of bacteria. However, within a few days after birth, a specific microflora begins to colonize their GI tract, (through breastfeeding, mother's vaginal flora, the environment). This endogenous microflora has many beneficial effects, which include: digestion, absorption and protection.

#### Repartition of healthy bacteria in the GI tract



# A FRAGILE DYNAMIC EQUILIBRIUM Disturbed by: Causing: Intestinal pains Allergic reactions Intestinal diseases Intestinal diseases Diarrhea Constipation

#### **DIGESTION & ABSORPTION:**

The intestinal flora helps the absorption of nutrients and participates in the synthesis of vitamins. It also promotes regularity.

#### **PROTECTION:**

The intestinal flora serves as a "barrier," protecting against infections by avoiding the colonization of the GI tract by pathogens. It does this by producing antimicrobial substances, as well as stimulating the body's own natural defenses.

Unfortunately, this beneficial microflora may diminish as a result of aging, use of antibiotics and other medications, stress, diet, and infections. **That is why it is beneficial to consume probiotics,** in order to modulate the endogenous flora in a positive way.

# PROBIOTICS... FOR LIFE

The word "probiotic" literally means "for life" (Greek and Latin origin). And that is precisely what probiotics do for us — they help promote life! The Food and Agriculture Organization (FAO) of the United Nations and the World Health Organization (WHO) define probiotics as, "live microorganisms which, when administered in adequate amounts, confer a health benefit on the host."

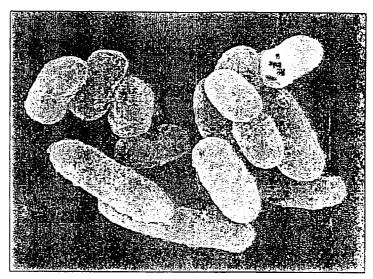
The idea of ingesting microorganisms is not a new one. In fact, people in cultures around the world have consumed probiotics in the form of fermented food products (yogurt, kefir, miso, just to name a few) for thousands of years.

Closer to the present, in the early 1900s, the Nobel Prize winning Russian scientist, Eli Metchnikoff, proposed the idea that Bulgarian peasants' long lives were due to their consumption of yogurt containing live Lactobacillus delbrueckii bulgaricus bacteria. Metchnikoff

argued that this bacteria inhibited the growth of putrefactive bacteria in the large intestine.

#### Did you know...

According to the
American College of
Gastroenterology,
more than 95 million
Americans experience
some kind of digestive
problem, and more than
10 million people are
hospitalized each year for
care of GI problems.



Lactobacillus rhamnosus Rosell-11 under microelectronic microscopy

#### **HEALTH BENEFITS**

**Gut Buddies**® truly are your buddies! These friendly microorganisms are essential in helping to maintain the body's delicate microbial balance — an often overlooked and yet critical element to our well being. Probiotics play a key role in the digestive process, as well as in our immunity.

#### Alleviation of chronic constipation

The blend Lacidophilus Rosell-52 + L.rhamnosus Rosell-11 in monotherapy has also been reported to alleviate the symptoms of constipation in a study with 11 patients. Frequency and consistency of stools were normalized in 84% of patients.

	Before intake o L.acidophilus Rose + L.rhamnosus rose	11-52	14 days after L.acidophilus rosell-52 + L.rhamnosus rosell-11 intake	<b>P</b>
Number of patients suffering from postprandial meteorism	73%		18%	p<0,05
Number of patients that have at least one daily spontaneous stool	0% =	; : -	64%	p<0,05

#### DIGESTION

Gut Buddies® contain lactic acid producing bacteria (LAB), which have several effects:

- Synthesis of Vitamins and Enzymes
   Lactic acid bacteria are responsible for
   manufacturing the essential vitamins B1, B2, B6,
   B12, niacin, folic acid, and pantothenic acid. In
   addition, they synthesize enzymes that enhance
   protein digestion.
- Regulation of Bowel Movement

  Lactic acid bacteria regulate bowel movements by moderating intestinal peristalsis.

#### THE END RESULT:

- Improved digestion
- Reduced flatulence

#### **IMMUNITY**

Gut Buddies® contain three different strains of bacteria that help to protect you from infection, and enhance the functioning of the immune system by:

- INCREASING AND ACTIVATING
   IMMUNE CELLS such as macrophages and lymphocytes, and increasing production of antibodies the body's defenses.
- INCREASING INNATE IMMUNITY by increasing mucin in the intestine;
- PRODUCING ANTIMICROBIAL AGENTS
   such as bacteriocins (antibacterial) that limit
   infecting microbes.

- LOWERING pH by producing lactic acid, thereby creating an environment inhospitable to many pathogens.
- SUPPRESSING THE ACTIVITY OF TOXIC and carcinogenic amine-producing enzymes associated with other intestinal flora.

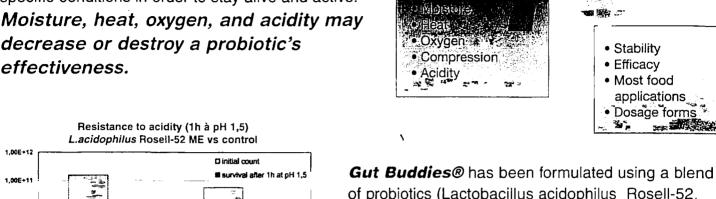
# Potential Health Benefits of Probiotics

- Positive influences on intestinal flora
- Prevention of intestinal tract infection
- Reduction of lactose intolerance
- Enhanced immune function
- · Reduction of inflammatory/allergic reactions
- · Regulation of gut motility
- · Helpful in uro-genital infections
- · Helpful in infection caused by H. pylori
- Enhanced overall sense of well being (mood)
   Mercenier et al. 2003

Probiotic supplements
are often recommended
for candidiasis
(yeast infections), digestive
disorders (including diarrhea
and constipation), gastritis,
lactose intolerance,
gas, heartburn, IBS
(irritable bowel syndrome),
and as an adjunct to
antibiotic therapy.

## All probiotic supplements are not created equal!

Because the friendly microorganisms in probiotic supplements are living organisms, they require very specific conditions in order to stay alive and active. Moisture, heat, oxygen, and acidity may decrease or destroy a probiotic's effectiveness.



1,00E+10 1,00E+07 1.00E+05 Lacidophilus Roseli-52 ME

of probiotics (Lactobacillus acidophilus Rosell-52. Lactobacillus rhamnosus Rosell-11, and Bifidobacterium longum Rosell-17), proven to be highly resistant to gastric acidity, able to grow in the presence of bile, and relatively stable at room temperature for extended periods of time.

Decreases or limits

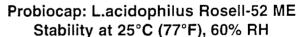
Probiotics' high sensitivity to

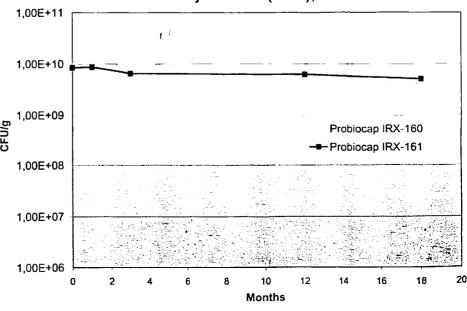
Gut Buddies® are coated using a unique microencapsulation technology. **Probiocap®**, to ensure their survival until they reach the intestine. This proprietary technology protects the bacteria from harmful stomach acids. In short — Gut Buddies® are STABLE and EFFECTIVE.

## CHOICE OF STRAINS

The health benefits derived from a probiotic supplement are greatly affected by the choice of strains. Gut Buddies® is a blend of three unique yet complementary bacterial strains that are naturally present in the intestine. Each friendly bug in Gut Buddies® has been selected for its ability to balance the intestinal microflora and enhance the body's natural defenses.

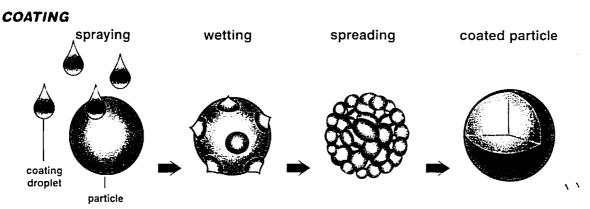
Taken every day, Gut Buddies® help to bolster the body's natural defenses.





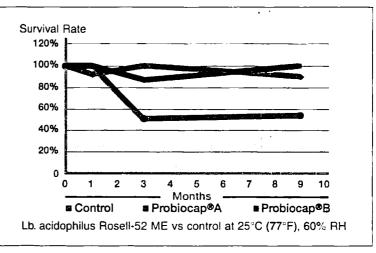
#### **GUT BUDDIES® PROVIDE:**

#### MICRO-ENCAPSULATION



## INCREASED SHELF LIFE UNDER STRESSFUL CONDITIONS

2 times more resistant than the control



### The ideal probiotic product should be:

- Multistrain
- Highly Prolific
- Able to Tolerate Oxygen
- Able to Tolerate Acid
- Able to Tolerate Bile
- Able to Produce Bacteriocins
- Stable at Room Temperature
- · Clinically Studied

# The ideal probiotic product is ... Gut Buddies® ASK FOR IT BY NAME

Disclaimer: These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

Gut Buddies®, Gut Friends®, Gut Life® and Gut Relief® are registered trademarks of Tishcon Corp.

Probiocap® is a registered trademark of Institut Rosell