

Bacteria we need

Bacteria exist everywhere but cannot be seen with the naked eye. An electron microscope is used to view the shapes and features of bacteria. Bacteria can survive in a diverse range of conditions; from freezing temperatures inside Antarctic ice to extreme heat within volcanic lava.



Bacteria reproduce by splitting into two, approximately every 20 minutes.

All bacteria require their own specific combinations of nutrients and environmental conditions to survive and for growth, otherwise they will remain dormant or die.

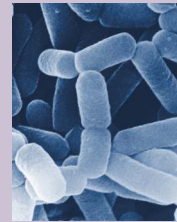
Beneficial bacteria have important roles in many aspects of our lives, such as uses in agriculture, science, medicine, and also to other organisms through decay of organic material and the recycling of nutrients. Other types of bacteria are harmful and can cause illness or decay, and these we definitely want to keep to minimum numbers.

Bacteria we need include:

- *Lactobacillus bulgarius* (lack-toe-bah-sill-us bul-ger-ri-us) used in the production of yogurt.
- *Streptomyces* (strep-toe-my-seas) species in soil are used to make streptomycin and other antibiotics for treatment of infections.
- *Pseudomonas putida* (sue-doe-moan-us-poo-tea-dah) clean wastes from sewage water at water treatment plants.

Bacteria particularly like to live in places that are warm and moist like the human body. Would you believe there are more than 100 trillion bacteria found right through your digestive tract?

Appropriately termed intestinal microbionics, our system would not function efficiently without them.



Lactic Acid Bacteria are beneficial bacteria and are closely associated with digestive balance. As time goes on our understanding of these complex relationships and how they can be influenced is improving.

Lactic Acid Bacteria in the digestive system:

- Promote digestive balance as lactic acid helps reduce the number of harmful bacteria present.
- Stimulate peristalsis to assist digestion of food and absorption of nutrients.

Lactic Acid Bacteria are used in the manufacture of food products such as Yakult, yoghurts and cheese.

Lactic Acid Bacteria in food products;

- Provide the unique flavour and sour taste of fermented foods due to lactic acid production.
- Promote preservation of foods because the lactic acid helps prevent growth of harmful bacteria.

Yakult contains the unique Lactic Acid Bacteria, *Lactobacillus casei* Shirota strain which helps to maintain and improve the levels of beneficial bacteria in your digestive system, and contribute to optimal digestive balance.

The key to optimal digestive function is maintaining 'digestive balance' - where numbers of beneficial bacteria outnumber those that are potentially harmful.

Yakult Education Program

Yakult has a commitment to improving the link between education and industry with a continuing focus on education.

Our Education Program includes FREE factory excursions, school visits, and resources for students and consumers. The facility in Dandenong is purpose built to manufacture Yakult products, and includes safe viewing areas and an education room.

FREE Education Kits are available online at: <http://www.yakult.com.au/education02.htm>

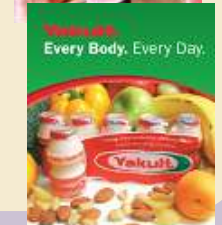
These kits are designed to support curriculum areas and are great for those assignments and projects! The latest Secondary kits are:

- **Made Fresh for You** contains information about Yakult production.
- **Under the Microscope** contains information about bacteria.
- **Digesting the Facts** includes information about living a healthy lifestyle.
- **Every Body, Every Day** is our marketing resource.

Primary kits are also available; the Yakult Adventure for students and a teacher's kit which includes extension activities.

Also check out two fun interactive activities at: <http://www.yakult.com.au/contact01.htm>

A word search activity has 24 words to find with a Yakult code to solve, and the 'noisy' digestive system drop and drag activity will keep kids laughing and learning.



Inside Markets

The Good Travelling Bug

By Dinah Woon
B. NutrDiet
Accredited Practising Dietitian



Many people enjoy travelling; we visit family and friends interstate, enjoy a holiday locally or overseas exploring new cities and places.

Travelling often means we have less control over our eating habits making it easy to feel like giving up and giving in to a wide array of high fat, high calorie choices.

Achieving your nutritional goals is still possible provided you are organised and plan ahead.

Preparation before travelling:

- Write a shopping list before going to the supermarket of easy healthy snacks that you can buy and make for the trip.
- Recently a number of clinical studies have indicated that probiotics such as Yakult may help to prevent or reduce a bout of diarrhoea and boost your immune system. Start drinking Yakult daily to boost the number of beneficial bacteria for a well balanced digestive system.

If travelling by plane:

- Drink plenty of water to avoid dehydration.
- Limit or refrain from alcohol & caffeine containing fluids as they increase fluid losses.
- Avoid eating out of boredom during the flight.
- Get up and walk around - particularly on longer flights.



If travelling by car:

- Pack a small ice cooler with drinks and snack items including water bottles, decaffeinated drinks or juice, fresh fruits and salads, yoghurt, healthy sandwiches, wholegrain crackers and cheese.
- Bring your own snacks to try and avoid convenience store stops. Most of the time they are just an excuse to get out of the car and stretch. Stop instead at a nearby park and take the time to rest, get some fresh air and enjoy your own picnic.
- Choose to stop at a healthy food outlet rather than a fast food store.
- If fast food is your only choice, opt for food items that are steamed or grilled and salads with low fat dressing.



The beneficial bacteria in Yakult are made to travel. They survive the journey through your stomach acids to arrive alive at its destination in your intestines. It is in your intestines where they can assist in maintaining a balanced digestive system while you travel! Bon voyage!

Did you know?

- You can drink Yakult at any time of the day; morning, noon or night, with or without food.
- More than 25 million people throughout the world drink Yakult daily. The Yakult Group is expanding businesses globally, more recently into India, Italy and areas of Canada.



Editor's word:

I'd like to take this opportunity to welcome Dinah Woon to Yakult Australia. Dinah commenced in September 2008 as the Company Dietitian and she is a member of the Dietitian's Association of Australia and Nutrition Australia. She previously gained experience in the food industry at an Australian flavour company, and with her qualifications and experience in nutrition she has put together tips for healthy travel in The Good Travelling Bug.



I hope that you enjoy this issue of *Inside Matters*. We will continue to provide you with information about your digestive system and tips for keeping yourself healthy on the inside.

Keep the letters, phone calls and e-mails coming in as we value your comments and feedback. You can contact the Yakult Information Service at 10 Monterey Rd, Dandenong, VIC, 3175, www.yakult.com.au or Freecall 1800 640023.

Enjoy! **Tania O'Brien, Editor**

To join the mailing list or forward any comments, questions or stories contact the editor at the address below.

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The information in this publication does not provide medical advice for individual problems. For advice and treatment, consult your doctor or health care professional.

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