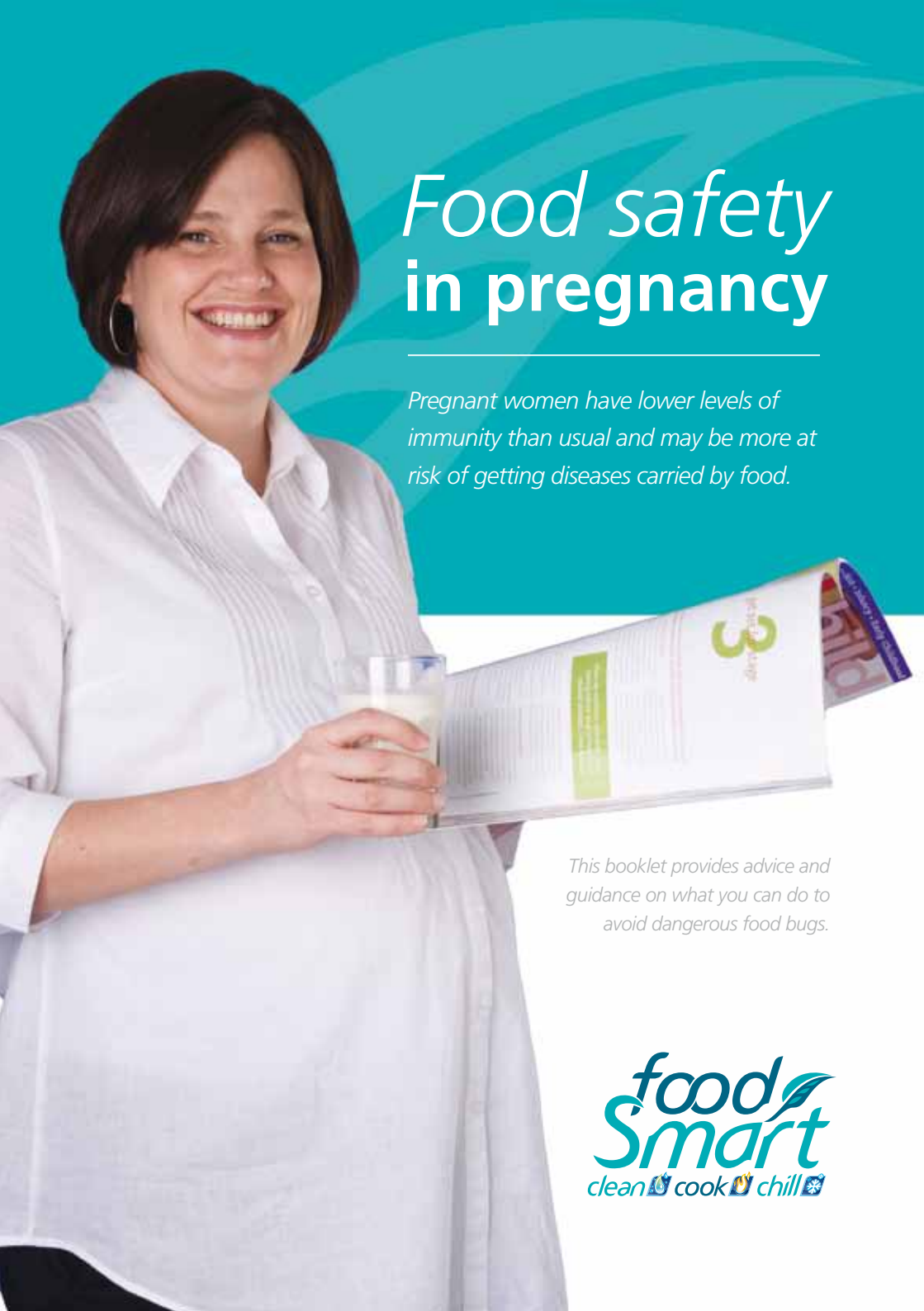
Food safety **in pregnancy**

Pregnant women have lower levels of immunity than usual and may be more at risk of getting diseases carried by food.



This booklet provides advice and guidance on what you can do to avoid dangerous food bugs.

food Smart
clean cook chill

Higher risk food
to avoid when pregnant

- **Chilled ready-to-eat foods** such as those bought from a supermarket deli or restaurant buffet unless they are heated until piping hot.
- **Prepared ready-to-eat foods** such as store-bought sandwiches where you can't be certain of product age, storage conditions, or the preparer's food handling practices.
- **Soft and semi-soft pasteurised cheese** eg, brie, camembert, feta, blue, mozzarella, ricotta.
- **Raw milk (unpasturised), raw milk cheeses and raw milk yoghurts**.
- **Cold cooked or smoked chicken.**
- **Processed meats** such as ham, pâté, salami or luncheon.
- **Prepared salads** including rice or pasta salad, coleslaw, roasted vegetable and green salads.
- **Raw or smoked seafood** including sushi, smoked salmon, marinated mussels, or oysters.
- **Raw eggs** eg, in smoothies, mayonnaise or desserts like mousse.
- **Soft serve ice cream.**
- **Cream or custard** especially in pre-made cakes or pastries (unless newly opened or home-made and fresh).
- **Hummus and other dips containing tahini** (which has been linked to both *Salmonella* and *Listeria* infection).

ACKNOWLEDGEMENT:
We are grateful to Dr Cathy Pikholz and Dr Greg Simmons for the original development of this resource in association with antenatal educators and pregnant women in Auckland.

Why **safe food is important** in pregnancy

Although New Zealand has one of the safest food supplies in the world, expectant mothers need to take extra precautions around food – to protect their own health and the health of their developing baby. During pregnancy, your immunity is lower so you and your unborn baby are more susceptible than usual to the kinds of foodborne illnesses that affect everyone.

In extreme cases, bugs found in food can cause miscarriage, still or premature birth, and serious illness or even death to newborn babies. But even less severe cases of foodborne illness can sideline you from the task at hand – developing a healthy baby.

The good news is that by taking some basic food safety steps you can prevent most foodborne illness. If others in your house help with the cooking and shopping, ask them to follow these tips too.

Information on the nutritional needs and healthy eating for pregnant women is in the Ministry of Health's booklet Eating for Healthy Pregnant Women (**www.healthed.govt.nz**).

Food safety in a nutshell

- Wash and dry your hands thoroughly.
- Be FoodSmart: clean, cook, chill.
- Avoid high risk foods ***(see our pullout guide).***

Foodborne illnesses **to avoid**

Washing and drying your hands properly is one of the most effective things you can do to prevent foodborne illness.

Listeria and ***Toxoplasma*** are two infections you can get through food which are rare but particularly dangerous when you are pregnant.

Listeria is a bacterium found in the environment, including in animal faeces, on plants, in soil and in water. As a result, *Listeria* can occur on raw food or contaminate prepared food. Unlike most bacteria, *Listeria* can grow on food in the fridge. The disease caused by *Listeria* – listeriosis – may cause miscarriage or early labour or the baby may be born with the infection and need treatment with antibiotics.

To avoid listeriosis:

- avoid eating higher risk foods (see box on inside front page or pull-out guide)
- wash or cook food thoroughly
- keep to 'use by' and 'best buy' dates and store food at the recommended temperatures
- eat packaged perishable foods within a couple of days of opening.

Toxoplasma infection can occur through cross-contamination after gardening where cats have deposited their faeces, or through direct contact with cats. It can also come from eating unwashed vegetables, undercooked meat, or drinking raw or unpasteurised milk and ready-to-eat cured meats such as salami and ham. The disease caused by *toxoplasma* – toxoplasmosis – may cause eye or brain damage in your unborn baby.

To avoid toxoplasmosis:

- wash your hands after handling raw meat and vegetables and after gardening
- ask someone else to empty your cat's litter tray, or wear gloves to do it
- wash and dry hands well after touching or cleaning up after animals.

Some other common foodborne illnesses to watch out for:

Campylobacter is a bacterium commonly found in animals and the environment. Campylobacteriosis is New Zealand's most commonly reported foodborne illness. In pregnancy it may cause miscarriage and premature labour.

Salmonella is a bacterium quite commonly found in raw meats, poultry, raw (unpasteurised) milk and raw milk cheeses and yoghurts, seafood, fresh produce (including sprouts), and foods such as kebabs and sandwiches handled by infected foodhandlers. Salmonellosis is New Zealand's second most commonly reported foodborne illness. In pregnancy it can cause stillbirth on rare occasions.

TOP TIP

Symptoms of foodborne illness

Most types of foodborne illness have fairly similar symptoms.

See your doctor as soon as possible if you have any of the following:

- nausea
- vomiting
- diarrhoea
- stomach pain
- headache
- swollen glands
- flu-like symptoms including fever and muscle aches.

Be **FoodSmart** during your pregnancy

Follow these basic FoodSmart steps to help reduce the risk of bacteria multiplying on food, or spreading from one type of food to another.

Clean

- Wash and dry your hands thoroughly before and after preparing food and especially after handling raw meat and poultry, using the toilet or helping a child to go to the toilet, covering a sneeze or a cough, changing nappies, touching pets, and gardening.
- Use clean tea towels and hand towels.
- Use different coloured cloths for the dishes, the bench and the floor or use paper towels and disinfectant to wipe up raw meat juices or floor spills.
- Use separate chopping boards and utensils for raw meats and cooked or ready-to-eat foods (eg, salad) – or wash the chopping board well between uses.
- Put cooked food onto a clean plate, not the one you used when the food was raw.
- Change your dish cloths or sponges regularly and clean them by: washing in hot water, soaking in bleach solution for at least one hour, wetting then microwaving for 2 to 4 minutes on high, or putting through a full cycle in the dishwasher.
- Cover food to protect it from flies or cross-contamination from raw meat juices.

Microwaving

- Stir food to avoid uneven cooking which leaves cold spots where bugs can survive.
- Cover food as this allows it to cook or thaw more evenly.
- Leave food for the recommended standing time so it finishes cooking.

Cook

- Defrost food in the fridge overnight or on the defrost setting in the microwave and make sure it's defrosted right through before cooking.
- Preheat the oven so that food cooks as quickly as possible.
- Keep raw and cooked foods separate.
- Cook or reheat food thoroughly. Cook chicken, mince and sausages right through – the only way to be really sure is to use a meat thermometer to check they are cooked to the safe internal temperature of 75°C.
- Marinate food in the fridge and cook the marinade before pouring it over cooked food.
- Eat cooked food while it is still hot – don't leave it to stand at room temperature for more than two hours.
- Reheat leftovers until piping hot (over 70°C) and do not reheat more than once.

Chill

- Fridges should be between 2°C and 4°C. If you overload the fridge or open it often, it will have difficulty staying cold.
- Freezers should be between –15°C and –18°C ie, cold enough that the food is frozen solid.
- Cover food before putting in the fridge or leaving out for serving – food can be covered and left at room temperature for up to 2 hours before it should be eaten, reheated right through, put back in the fridge, or thrown out.
- Cover and store raw meat on the bottom shelf of the fridge so juices don't drip on other food.

TOP TIP

Be **FoodSmart** during your pregnancy

Eating well during your pregnancy is essential, but it's also important to eat safely.

Wash your hands

Washing and drying your hands properly is one of the most effective things you can do to prevent foodborne illness.

Drying is just as important as washing.

- Wash + dry = clean.
- Wash your hands thoroughly, using plenty of soap.
- Rinse them well.
- Dry hands well on a clean, dry hand towel or paper towel.
- Keep hand towels for hands only, or use paper towels – don't use the tea towel.
- Use a fresh hand towel daily (and change it more often if it is dirty).

Buy safe food

Food that has passed its 'use by' date is not safe to eat and it is illegal to sell it.

Food may be sold and eaten after its 'best by' date but we don't recommend this for pregnant women.

Don't buy:

- food in damaged packets or tins or in loose vacuum packs – vacuum packaging should be tight around the food, with no air pocket
- chilled products that are not cold to the touch
- frozen products that are not frozen solid
- hot foods that are not piping hot (eg, cooked chicken).

Store food safely

- Keep food in covered containers and store as recommended by the manufacturer.
- Eat food before the 'use by' and 'best by' dates and within two days of opening the package or container.
- Throw away food that has passed its 'use by' date.
- Use food within two days of opening the package or container.
- Keep your fridge between 2°C and 4°C.
- Leftover hot food should be covered and put in the fridge as soon as it has stopped steaming; hot food will cool more quickly if put into a shallow covered dish in the bottom of the fridge where it is colder.
- Throw out leftovers after two days and never freeze food more than once.
- Only drink treated water.

TOP TIP

Take food home safely

- At the supermarket, make sure raw meat and chicken are packed separately from the rest of your groceries to stop cross-contamination from raw meat juices.
- Take food straight home or transport it in a chilly bin then put it into the fridge or freezer right away – never leave food in a hot car or sitting around waiting to be put away.

When eating raw foods or eating out

The principles of food safety are the same for raw foods and takeaways as they are for foods prepared at home.

Foods that are eaten raw

- **Fruits and vegetables** may harbour dirt, insects or residues from sprays. Thoroughly wash produce in safe (treated) water.
- **Raw shellfish.** Don't eat raw shellfish and foods made with raw fish, such as sushi. These can sometimes contain harmful bacteria and viruses.
- **Milk and milk products** (eg, milk, cheese, and yoghurt) are important sources of protein and calcium during pregnancy. Most milk products sold in New Zealand are pasteurised, which greatly reduces the risk of bugs that can make you sick. Ideally, they should be consumed within two days of opening, or can be used as an ingredient in cooked foods if older than two days. Don't eat raw (unpasteurised) milk and raw milk cheeses or yoghurts.
- **Soft, pasteurised cheeses** (eg, brie, camembert, blue, ricotta, mozzarella and feta) should generally not be eaten uncooked while you are pregnant. However, if you've bought them in the manufacturer's original packaging, they can be eaten in small quantities immediately after opening. Do not reseal and eat them later, and do not eat if they have been cut and repackaged in a deli or supermarket as they may have become contaminated.

Restaurants, cafes and takeaways

The principles of food safety are the same for takeaway foods as they are for foods prepared at home.

- Piping hot food, well-done meats and foods that have been well-cooked immediately before eating can be considered safe, eg, cooked-to-order meals, deep fried and baked foods, or hot freshly-made pizza. Hot soup is a healthy alternative that is generally safe to eat.
- Don't eat high-risk foods such as sushi, salads and sandwiches (see Higher risk foods to avoid when pregnant).
- Avoid buffets or smorgasbords where food may have been sitting uncovered, allowed to cool, or contaminated by other people.

TOP TIP

Overseas travel

Some countries have extremely high rates of foodborne illness, and water supplies may not be safe.

- Take special care that food (especially meats, pre-prepared or ready-to-eat foods, and uncooked, peeled fruit and salads) and water (including ice) is safe to eat and drink.
- Pregnant women should seek advice from their doctor, a local public health unit or travel health clinic before travelling overseas.

In pregnancy **you need more**…

Folate is found naturally in food – especially green vegetables and grains.

Folic acid

- Before you get pregnant and during the first trimester of pregnancy you need an increased amount of folic acid, a B vitamin which helps form your baby's blood cells and nerve tissue. If you don't get enough folic acid your baby has a higher risk of developing neural tube defects such as spina bifida and anencephaly.
- Folate is found naturally in food – especially green vegetables and grains. Folic acid, which is the synthetic form of folate, is voluntarily added to some foods, eg, some breakfast cereals and some bread. However it hard to get enough folate or folic acid from your diet, so the Ministry of Health recommends you take a folic acid tablet.
- For at least four weeks before you conceive and for the first 12 weeks of pregnancy you should take a pregnancy folic acid tablet containing at least 400 micrograms daily. Women with a family history of neural tube defects may be advised to take a higher dose of folic acid. Check with your doctor or midwife to find out what is best for you.
- Folic acid tablets are available from pharmacies or on prescription from your midwife or doctor. If you find out that you are pregnant and have not been taking folic acid tablets, you should start taking one immediately.

Iodine

- During pregnancy and while breastfeeding you need an increased amount of iodine, which is essential for the growth and development of your baby. Iodine occurs naturally in most foods although usually in small amounts, so it is important to choose foods that are rich in iodine but also safe for you and your baby.
- Choose foods that are good sources of iodine eg. low-fat milk products, eggs, cooked fish and shellfish, and most bread.
- Iodised salt will provide some iodine in your diet if used instead of non-iodised salt in cooking or at the table. Most commercially prepared bread has iodine added to it through the use of iodised salt.
- An iodine-only tablet (containing 150 micrograms) specifically made for pregnant and breastfeeding women is available from pharmacies or on prescription from your doctor or midwife. Other iodine supplements (including seaweed and kelp supplements) are not recommended as the iodine content in some of these products is extremely variable and there are risks from having too much iodine. If you have any concerns about iodine intake, talk to your midwife or doctor about what is best for you and your baby.

TOP TIP

Choose foods that are good sources of iodine eg, low-fat milk products, eggs, cooked fish and shellfish, and most bread.

In pregnancy **watch out for**…

Caffeine

There is evidence that caffeine consumption may affect your baby's growth during pregnancy. Caffeine is naturally occurring in tea, coffee and chocolate, and is present in many cola-type soft drinks. Limit your consumption of caffeinated drinks while pregnant. Energy drinks and shots, which may contain high levels of caffeine, are not recommended for pregnant or breastfeeding women. Be cautious about drinking herbal teas. Discuss this with your doctor or midwife.

Alcohol

It is safest to avoid alcohol during pregnancy or if you are trying to get pregnant. Alcohol crosses the placenta so the foetus is affected by whatever the mother consumes. Excessive alcohol consumption is linked to foetal alcohol syndrome, which may damage your baby's brain. Even if the mother drinks only small amounts, her baby may show behavioural and learning difficulties linked to alcohol.

Mercury

Cooked fish is a healthy food for you and your growing baby. Fish is low in saturated fat and an excellent source of protein, essential omega-3 fatty acids, iodine and some vitamins. Omega-3 is important for the development of the central nervous system.

Mercury occurs naturally in the environment and accumulates in the aquatic food chain as methyl-mercury, so all fish contain some methyl-mercury. If you are pregnant or considering pregnancy, keep your exposure within safe limits by eating fish species that have lower levels of mercury, and eat a variety of fish where possible. Most of the commonly eaten fish species in New Zealand can be eaten freely. See the pullout guide for recommended servings for various fish species.

Cadmium

Bluff oysters and queen scallops have high cadmium concentrations. We recommend you minimise your intake (regardless of how they are prepared) during pregnancy.

More **information**…

Visit: **www.foodsmart.govt.nz**

www.foodsmart.govt.nz

New Zealand Food Safety Authority
PO Box 2835
Wellington
NEW ZEALAND

0800 NZFSA1 (0800 693 721)

ISBN: 978-0-478-31165-5 (Print)
ISBN: 978-0-478-31166-2 (Online)

Revised August 2010

DISCLAIMER
Every effort has been made to ensure the information in this guide is accurate. NZFSA does not accept any responsibility or liability whatsoever for any error of fact, omission, interpretation or opinion that may be present, however it may have occurred.

newzealand.govt.nz