

The Bump 
to Baby Diet
LOWGIEATING PLAN

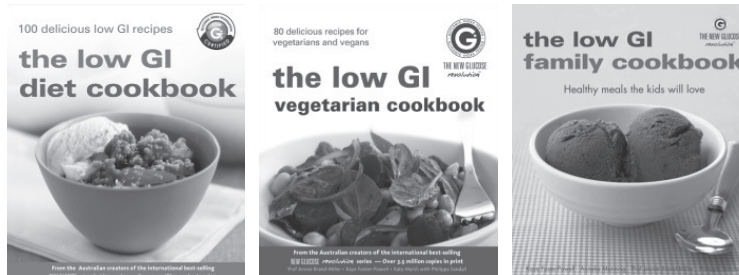
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PROFESSOR JENNIE BRAND-MILLER, DR KATE MARSH,
PROFESSOR ROBERT MOSES

The Bump to Baby Diet



LOWGI EATING PLAN

FOR CONCEPTION, PREGNANCY AND BEYOND

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The GI values in this book are correct at the time of publication. However, the formulation of commercial foods can change and the GI may change as well. You can rely on foods showing the GI symbol.



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This book is dedicated to our patients and study volunteers, whose questions and welfare have fostered further research, and to all women, who, by reading this book, may improve their pregnancy experience and future quality of life

Jennie (Sydney), Kate (Sydney) and Bob (Wollongong)
February 2012

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Introduction

A PREGNANCY BOOK LIKE NO OTHER

This book about eating for a healthy pregnancy is at the cutting edge of science and medicine. Most pregnancy books will cover nutrition requirements, supplements, foods to emphasise and foods to avoid. This book does that too, but it goes much further. *The Bump to Baby Diet Low GI Eating Plan for a Healthy Pregnancy* has a unique focus on the importance of your weight at the start of pregnancy, your weight gain over the next nine months and your baby's birth weight, and the profound effect these have on the future health of you and your baby. The GI, a way of rating the carbs in your diet, is for everybody, but it's especially relevant during pregnancy, and this book is aimed squarely at women who are pregnant – or planning to be.

The Bump to Baby Diet is not a fad diet, but a safe and healthy action plan for eating before and during pregnancy with many proven 'value-added' benefits. A low GI diet is one in which meals have a lower blood

What is the GI?

GI stands for glycemic index. It's a scale from 0 to 100 that helps guide carbohydrate choices and is a physiologically-based measure of the effect of carbohydrates on blood glucose levels. It provides an easy and delicious way to eat a healthy diet and at the same time control fluctuations in blood glucose. After testing hundreds of foods around the world, scientists have now found that foods with a low GI will have less of an effect on blood glucose levels than foods with a high GI.

glucose impact. In addition to optimising your weight gain and nutrient intake throughout pregnancy, you control your blood glucose levels and reduce the chances of developing gestational diabetes mellitus (GDM) or having a complicated delivery.

Pregnancy is a stage in life when the carbohydrates in food play a starring role. This is because your average blood glucose level throughout the day is directly correlated with your baby's growth rate in the womb. Quite simply, glucose is the primary fuel that drives all aspects of your baby's development. If your glucose levels are too high then your baby will grow too fast and be born with excessive amounts of body fat. This is not a new finding. It's the main reason why women who have type 1 diabetes (a condition that requires daily insulin injections to maintain normal glucose levels) are given close medical attention before and during their pregnancies. It's also the principal reason why all pregnant women are routinely screened during pregnancy to determine if they have developed GDM. What's new is that we now know that even mildly elevated glucose levels during pregnancy can have serious consequences.

'Even mildly elevated glucose levels during pregnancy can have serious consequences'

Pregnancy is a like a metabolic stress test. Even during the first trimester, your placenta and growing baby draw so much glucose from your bloodstream that your early morning glucose levels are lower than they are in the non-pregnant state. Pregnant women use carbohydrate at a greater rate both at rest and during exercise than do non-pregnant women, so one of the first metabolic adaptations your body makes to pregnancy is a greater capacity to produce glucose in the liver. While this makes perfect sense (if your access to food is temporarily restricted, your growing baby will still be getting the energy it needs), it means that glucose synthesis is always 'on' and thus all women become more resistant to insulin's effects as pregnancy progresses. For some women, this precipitates gestational diabetes.

2 The **Bump** to **Baby** Diet

Pregnancy is also a time when women often gain too much weight, compromising not only their own future health, but that of their baby. Traditionally, dietary advice for pregnancy has focused on making sure there's adequate intake of all the essential nutrients. That's not surprising considering the fact that the requirements for many nutrients are higher than at any other time in life. Unfortunately, weight gain during pregnancy, despite its importance, is not given the emphasis that it deserves. In this book, we show you how to calculate your ideal weight gain (depending on your height and pre-pregnancy weight), and how to monitor and keep it under your control.

One of the reasons we wrote this book is because infant birth weights and child obesity have increased hand in hand over recent decades in most industrialised nations. We now know that life inside the womb is a critical period for the metabolic 'programming' of obesity in later life. Your weight at the time of conception and weight gain from early to late pregnancy profoundly influence your infant's birth weight and future risk of becoming overweight. Reducing the GI of your diet is one of the safest and most effective ways of ensuring that your baby grows at the optimum rate without laying down excessive body fat.

The Bump to Baby Diet is the only low GI diet book specifically for pregnancy written by internationally recognised scientists qualified in nutrition, dietetics and diabetes, and at the cutting edge of research on carbohydrates, the GI and pregnancy. We understand exactly the connection between food, maternal blood glucose levels and your baby's future health. Our training and experience give us the tools to help pregnant women beat excessive weight gain, without compromising nutrition, during this important stage of life.

The figures speak for themselves. *The Low GI Diet* series is a bestseller around the world, with 3.5 million copies in print in more than twelve languages. *The Bump to Baby Diet* is simply the latest book that takes our research out of the ivory tower and into the homes of ordinary people. We publish in the world's leading nutrition and medical journals first, then we show you how to put it into practice. You can be reassured that our dietary advice is a safe, balanced and sustainable way of eating that puts no one at risk in either the short or long term.

The Bump to Baby Diet is based on choosing carbohydrates that are slowly digested and absorbed, producing only gentle rises and falls in blood sugar (blood glucose) and insulin levels. It is not a low-carb diet, nor a low-fat diet; not even a high-protein diet. It's much more flexible and sustainable than any of those, and it is quite simply a delicious way of eating that's part and parcel of many ethnic cuisines. We promise you won't be ravenously hungry between meals, you won't be weighing out food and you certainly won't be counting kilojoules. One of the reasons this diet is easy is its unique ability to keep you feeling fuller for longer. It helps control appetite by controlling blood glucose and stimulating the production of the body's own natural appetite suppressants. Metabolically, it reduces insulin levels and maximises the burning of fat. It's not restrictive or monotonous and it includes your favourite foods, or foods that could easily become your favourites.

'A low GI diet is a delicious way of eating . . . You won't be ravenously hungry between meals, you won't be weighing out food and you certainly won't be counting kilojoules.'

In a nutshell, by following *The Bump to Baby Diet*, you can eat and enjoy moderate amounts of lean meat, poultry, fish, shellfish, eggs, tofu and low-fat dairy or soy foods such as milk, soy milk, cheese and yoghurt, and reasonable quantities of bread, pasta, breakfast cereal, rice noodles and grains (such as quinoa and barley). Legumes play a starring role because they have the lowest GI of all, and are particularly important if you are vegetarian. You can also eat large portions of non-starchy vegetables and salads and moderate amounts of fruit and starchy vegetables, including the new low GI variety of potato (Carisma™). Your salads will be dressed with vinaigrette made with healthy oils. You'll have three balanced meals a day, and we encourage you to have morning and afternoon snacks. You can even include the occasional dessert or other indulgence.

This is a special book for another important reason – it deals not just with energy intake (what you eat) but energy output – energy expenditure and physical activity. This is the critical side of the energy equation,

the part that many pregnancy books ignore. Unless you increase your level of activity, weight gain during pregnancy will inevitably exceed the recommendation. If you exercise more, you not only reap the benefits of more muscle tone and joie de vivre, making it easier to regain your pre-pregnancy figure, you will reduce your odds of developing gestational diabetes and having a difficult delivery.

And if you're finding it hard to become pregnant, then this diet will really increase your chances. It does this by getting right to the root of one of the problems – insulin resistance – that affects about one in five women. We take you by the hand, describing exactly what you need to do and eat to maximise your fertility as well as your baby's future health. You'll learn the skills to achieve serious, sustainable lifestyle change – the key to lifelong health. We show you how to embrace simple forms of physical activity and behavioural control that will keep the engine revving and stop unwanted weight gain. You'll be taking care of yourself, looking good, feeling good and maximising your own health as well as your baby's. Physical activity and healthy food habits will become just that – *habits* that are easy to sustain.

This is a family-friendly diet too: your partner and your other children will be sitting down to the same delicious food as you; only the quantities will vary. Unlike many fad diets, there are no issues with long-term threats to bones, kidneys, blood vessels and heart health.

All this good advice comes to you from the world's most recognised experts on the GI of foods.

WHO ARE WE?

JENNIE BRAND-MILLER is Professor of Human Nutrition at the University of Sydney in Sydney, Australia. She holds a Personal Chair in the School of Molecular Bioscience and leads the nutrition division of the Boden Institute of Obesity, Nutrition, Exercise, and Eating Disorders. Affectionately known as 'the queen of the glycemic index', she is acknowledged worldwide for her expertise on carbohydrates and health. Her research interests focus on many areas of nutrition, diet and diabetes, insulin resistance, lactose intolerance and infant nutrition. She holds a special interest in evolutionary nutrition and the diet of hunter-

gatherers. It was her early research on Australian Aboriginal bush foods that stimulated her to start looking at differences between modern and traditional diets as a cause of the ‘diseases of affluence’ such as diabetes. In 1981 the very first paper to mention the glycemic index accidentally landed on her desk, precipitating a project for an honours student. Since then Jennie and her team have played a key role on the world stage in establishing the scientific validity, benefits and practicalities of the glycemic index. Twenty books and more than 220 peer-reviewed journal articles over a space of 30 years make her eminently qualified to give you all the facts you need to put a healthy low GI diet into practice.

DR KATE MARSH is an Advanced Accredited Practising Dietitian and Credentialed Diabetes Educator, with a Masters of Nutrition and Dietetics from the University of Sydney and a Graduate Certificate in Diabetes Education and Management from the University of Technology, Sydney. She has recently completed her PhD at the University of Sydney, looking at the benefits of a low GI diet in the management of insulin resistance in women with Polycystic Ovary Syndrome (PCOS) and has published a number of scientific papers. Kate works in private practice in Sydney, Australia and has a particular interest in PCOS and diabetes, including gestational diabetes, having worked with thousands of women with these conditions over the years.

She chairs a PCOS discussion group for dietitians, co-chairs a diabetes interest group for dietitians and has been involved in the development of evidence-based practice guidelines for the management of PCOS and type 1 diabetes in Australia. Kate is also co-author of *The Low GI Guide to Managing PCOS*, *the Low GI Vegetarian Cookbook* and *Low GI Gluten-free Living*, and writes regularly for a number of magazines on diabetes, PCOS, insulin resistance and vegetarian nutrition.

PROFESSOR ROBERT MOSES is the Director of Metabolic Themes at the Illawarra Health and Medical Research Institute, University of Wollongong, and Director of Diabetes Services. He has more than thirty-five years of experience with the clinical problems of people with diabetes, and is an acknowledged national and international authority on

the topic of diabetes and pregnancy. He has researched and published extensively on the problems of gestational diabetes and has always had a great interest and enthusiasm for the beneficial effects of a low GI diet during pregnancy. Robert has also been on the Editorial Board and is an Associate Editor of the world's leading clinical diabetes scientific journal. In this capacity he has early access to a major portion of the best research and discussion about the problems of diabetes in pregnancy.

HOW TO USE THIS BOOK

This book is divided into five sections. If you are still in the planning stages ('just practising'), then Part 1 is written especially for you. If you're already 'up the duff', then skip straight to Part 2 for all the information on what to eat, weight gain, blood glucose, diabetes in pregnancy and exercise. Part 3 deals with all things relevant to post-delivery, but it would be useful to read it now so you're prepared once bub is born. Part 4 covers the practical side of what to eat (putting it all on the plate) and has more than fifty delicious recipes to give you a head start. At the back of the book you'll find a weight-gain chart, which you can photocopy or tear out and put on your fridge. Finally, because we are scientists as well as authors, we list all our resources and references should you need further information. We wish you healthy eating and happy reading!

JENNIE, KATE AND BOB