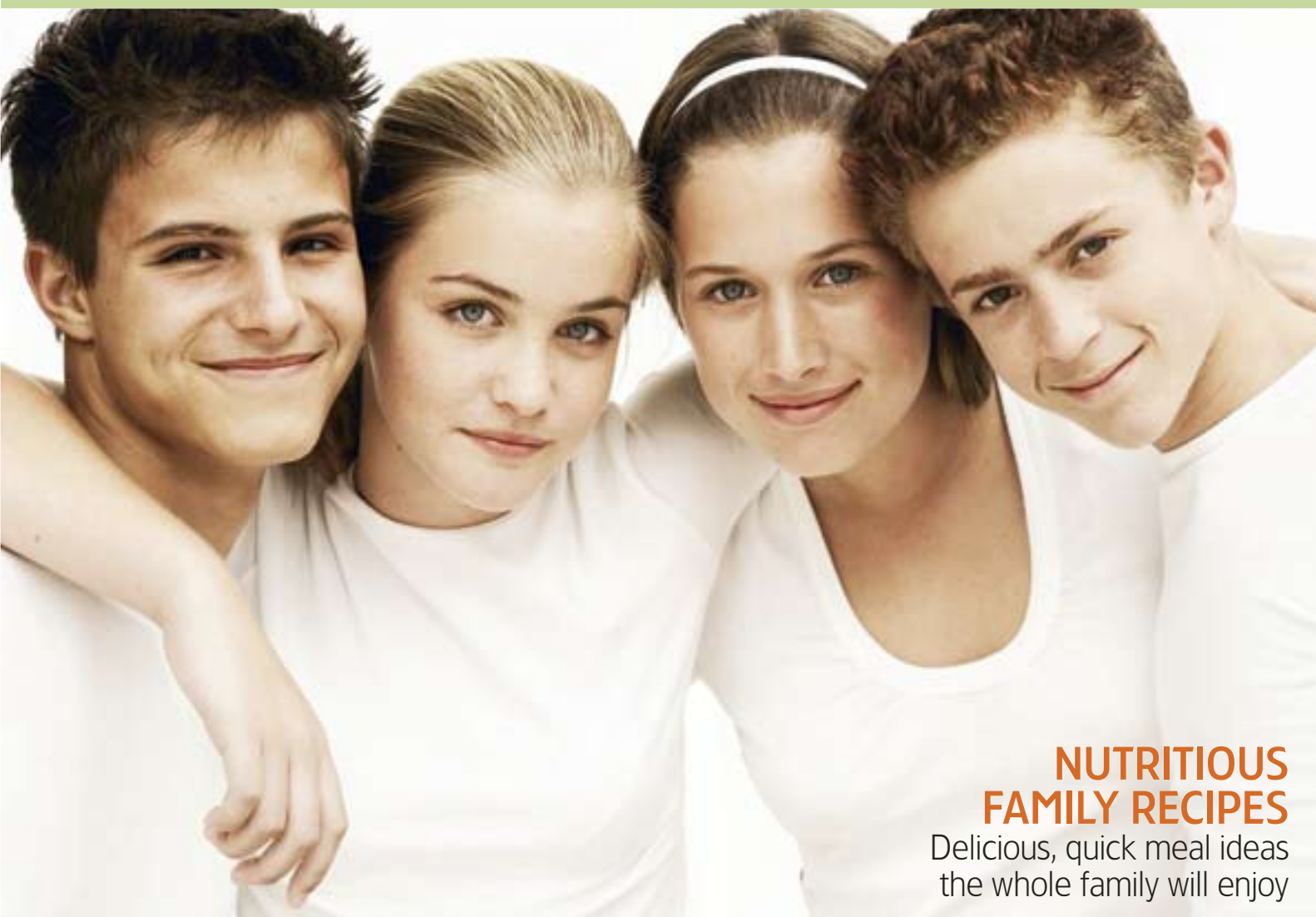




# The Teenage Anti-acne Diet

SCIENTIFICALLY PROVEN HIGHER PROTEIN-LOW GI EATING PLAN FOR HEALTHY SKIN



## **NUTRITIOUS FAMILY RECIPES**

Delicious, quick meal ideas  
the whole family will enjoy



**Exercise tips  
to keep teens  
active**



**The diet at  
a glance**



**Kids in the  
kitchen**



**Simple steps  
to clear,  
healthy skin**

# W elcome



**When it comes to your health,** you can't underestimate the importance of a good diet and exercise plan. As well as fuelling your energy levels, the right foods help you to fight disease and maintain your optimum physical condition – including clear skin.

The latest findings from RMIT, highlighting the link between a high-starch Western diet and acne, are extraordinary and the resulting eating plan for teenagers that appears in this booklet is recommended reading for every parent.

*Deborah Thomas*

**DEBORAH THOMAS**  
Editor-in-Chief The Australian Women's Weekly



**Dr Anne Howard**  
President of the  
Australasian College  
of Dermatologists

Like all dermatologists, I was taught that diet did not affect acne. This belief was based on two poorly controlled studies published more than 30 years ago.

I was fascinated by this groundbreaking research from RMIT University and the Department of Dermatology at the Royal Children's and Royal Melbourne hospitals. This study is the first of its kind to look at a total dietary approach to acne. I believe the results are significant, providing us with some scientific evidence to what we always suspected anecdotally – that the diet/acne link may not be a myth! I look forward to further research on diet's role in acne management.



**Dr Neil Mann**  
Associate Professor  
of Nutritional  
Biochemistry,  
RMIT University

For years, I've had a special interest in the area of nutrition and how the human diet has evolved over time. I found that, although acne is quite common in Western societies such as Australia, it's almost non-existent in traditional hunter-gatherer societies, where the diet is based on natural, minimally processed foods.

This inspired me and my colleagues, including Robyn Smith, Dr George Varigos and Dr Anna Braue, to study the diet and acne relationship further.

We're pleased to share with you the results of our work, which challenges previously accepted beliefs that diet and acne are unrelated.

Here, the science is turned into a practical diet and lifestyle plan that can be used alone or with anti-acne treatments to help improve acne and overall quality of life.

**Clear skin is not only a sign** of good health and vitality in your teenager, it is critical to helping every young person develop self-confidence and a positive self-image. That's why The Australian Women's Weekly, in partnership with Meat & Livestock Australia (who funded the study), are proud to present The Teenage Anti-acne Diet, based on up-to-the-minute research about the link between diet and adolescent skin disorders. This booklet is designed to help parents understand the important role nutrition and exercise play in the management of acne. It provides you and your teenager with information and advice about food preparation, exercise and skincare. Once you are better informed, you can guide your teenager and the rest of the family to make the best lifestyle choices to maintain a clear complexion and optimum health for life.



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These recipes have been triple-tested by The Australian Women's Weekly Test Kitchen.

# FACTS ABOUT ACNE

## What is acne?

Unlike the odd pimple or blemish, which clears after several days, acne is a chronic skin condition. It appears as an outbreak of pimples, blackheads, whiteheads, red/flesh-coloured lumps or cysts on the face and sometimes the back, chest and shoulders.

## What causes acne?

The sebaceous glands supply oil to the skin to help keep it supple. Acne occurs when a mixture of oil and dead skin cells form a plug that blocks the skin's hair follicles and pores. Though blocked, the gland keeps pumping out oil, providing a perfect breeding ground for bacteria. The resulting inflammation causes redness, swelling and tenderness of the surrounding skin.



## Who suffers from acne?

Acne is a disease of modern societies, affecting between 79 and 95 per cent of all adolescents in Australia. Yet in hunter-gatherer societies, it is almost non-existent. What is the difference?

The difference is their diet, which is based on more natural, less-processed foods, such as fresh fruits, vegetables, lean meats, seafood and wholegrains.

**Interesting fact:** Acne only appeared among the Eskimos when they adopted a Western diet of highly processed and refined foods.

## How does diet affect acne?

The link between diet and acne has long been considered a myth. This belief is based on two poorly controlled studies, published more than 30 years ago. Now this groundbreaking study<sup>1</sup>, led by Dr Neil Mann from RMIT University in Melbourne, has challenged this belief, showing that the right diet can reduce acne by more than 50 per cent, in only 12 weeks. The changes involved were simple and included eating more lean protein (eg, red meat, fish and chicken) and low Glycaemic Index (GI) foods (eg, wholegrain bread, basmati rice and baked beans).

## TYPES OF ACNE

Type of acne	Characteristics	Location
<b>Mild</b>	Blackheads The black colour is due to the oil reacting with oxygen in the air – it is not dirt.  Whiteheads Stay below the skin's surface.	Generally found on the face. They do not cover large areas of the face or body.
<b>Moderate</b>	Papules Raised and inflamed lumps.  Pustules Raised and inflamed lumps with white or yellow centres.	Widespread across the face or oily parts of the body, such as the back, chest or shoulders.
<b>Severe</b>	Cysts and nodules Large, solid, painful lumps under the skin.	Cover large areas of the face and body.

## FINDING THE LINK

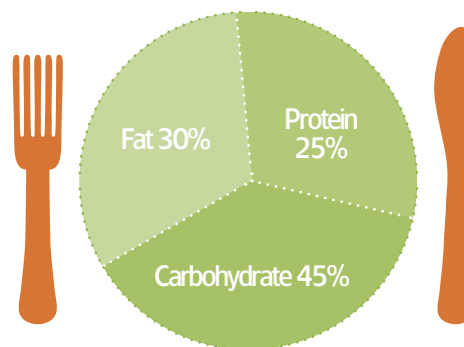
This RMIT study is the first of its kind to investigate the effect of diet on acne symptoms. Young men aged 15–25 were split into two groups and prescribed a diet for three months. One group followed the typical Western teen diet of highly processed foods, such as white bread, potatoes and snacks such as biscuits and chips. The other group mirrored the hunter-gatherer diet of fresh and natural foods.

### Study aim:

To compare the effects of two different diets on acne.

1. **WESTERN DIET** – containing highly processed and refined foods.

2. **THE ANTI-ACNE DIET** – a higher protein-low GI diet containing more natural foods, such as fresh fruits, vegetables, lean red meat, seafood and wholegrains, with processed food and takeaway kept to a minimum.



Nutritional breakdown of The Anti-acne Diet.

## WHAT THE STUDY SHOWED

The RMIT study found a number of key benefits from dietary changes, which included:

- REDUCTION IN ACNE
- DECREASE IN INSULIN RESISTANCE
- LOWERING OF HORMONES LINKED TO ACNE
- IMPROVED QUALITY OF LIFE

### ● REDUCTION IN ACNE

In the RMIT study, the young men who were on The Anti-acne Diet for 12 weeks enjoyed a significant improvement in their skin problems. The Anti-acne Diet was shown to reduce acne more than in the group on the Western diet.

### ● DECREASE IN INSULIN RESISTANCE

The benefits of The Anti-acne Diet are more than skin deep.

During the RMIT study, the young men on The Anti-acne Diet experienced a beneficial reduction in insulin levels and insulin resistance. This is good news, given that higher insulin levels are not only linked with acne, but also to increased risk of weight gain and Type 2 diabetes later in life.

### ● LOWERING OF HORMONES LINKED TO ACNE

Most acne begins during puberty, due to hormonal changes. Testosterone (a male hormone found in both men and women) and insulin-like growth factor are the two hormones most closely linked to acne. Now evidence suggests that the effect of these hormones can be altered by switching to a more natural diet. During the RMIT study, the group on The Anti-acne Diet showed a significant decrease in available testosterone and growth factor activity.

This decrease corresponded with an improvement in acne, providing further support for the dietary connection.

Dr George Varigos, head of dermatology at Royal Melbourne Hospital and the Royal

It took only 12 weeks on a **higher protein-low GI** diet for teenage boys in the RMIT study to **reduce** their facial **acne** by **50 per cent**

Children's Hospital, who was also involved in the study, says he was not surprised by this result, which he feels further supports and establishes the role of diet in both contributing to acne and helping to control it.

### ● IMPROVED QUALITY OF LIFE

In addition to improvements in acne, the group on The Anti-acne Diet showed significant improvements in quality of life factors. "In our research, we found acne had a huge impact on quality of life, with improvements having a positive effect on self-esteem, confidence and on overall mood. Therefore, the more we can learn about acne, its causes and treatment, the better," Dr Mann says.

*This study was supported by an educational grant from Meat & Livestock Australia*

## The Anti-acne Diet was found to:

- Reduce acne by more than 50 per cent after 12 weeks.
- Reduce insulin levels, which helped to control hormonal imbalances associated with acne.
- Have a positive effect on energy levels, self-esteem, confidence and overall mood.

### REFERENCE:

1. Smith, R, Mann, N., Braue, A., Makalainen, H. and Varigos, G. "The effect of a higher protein, low glycaemic load diet vs a conventional, high glycaemic load diet on biochemical parameters associated with acne vulgaris. A randomised, investigator-masked, controlled trial." *Journal of the American Academy of Dermatology* (in press).

## EATING FOR HEALTHIER SKIN

The findings of the study showed:



To help control blood glucose, insulin and hormone levels to keep acne in check, it is important your teenager includes both:

1. Protein-rich foods
2. Low GI carbohydrate foods

## CLUED-UP ON CARBOHYDRATES

TEENAGERS ARE ALWAYS ON THE GO. WHEN NOT AT SCHOOL, THEY ARE BUSY WITH STUDY, SPORT, SOCIALISING AND CASUAL WORK. THE RIGHT CARBOHYDRATES PLAY AN IMPORTANT ROLE IN SUPPLYING THEIR BODIES WITH MUCH-NEEDED FUEL.

### ● WHAT IS THE GLYCAEMIC INDEX (GI)?

Only carbohydrate foods affect blood glucose levels. The GI measures the rise-and-fall effect specific carbohydrates have on blood glucose. It is based on a 50g serve of carbohydrate. High GI foods with a score of 70 or more, such as sugary ready-to-eat breakfast cereals, white bread, potatoes and biscuits, are more quickly digested and absorbed, causing blood glucose levels to rise rapidly. This sudden glucose spike triggers the pancreas to produce high levels of insulin, which stimulates hormones associated with acne. Low GI foods with a score of 55 or less, such as porridge, wholegrain bread, basmati rice and baked beans, are slowly digested and absorbed, causing blood glucose levels to rise slowly over time and have a lower insulin response.

### ● HOW TO CHOOSE HEALTHIER CARBS ON THE TEENAGE ANTI-ACNE DIET

Western diet	The Anti-acne Diet
Sugary ready-to-eat breakfast cereals	High-fibre breakfast cereals, rolled oats, natural muesli
White or wholemeal bread	Grainy bread, sourdough bread, fruit loaf
White rice	Basmati or Doongara rice, pasta, fresh noodles
Crackers	Grainy crispbreads
Sugar	Honey
Biscuits, cakes, lollies, muesli bars	Fresh fruit, vegetables, dried fruit, unsalted nuts, seeds, low-fat dairy foods
Crisps	Plain popcorn
Potatoes	Sweet potato, sweet corn or carrots
Soft drink	Water, low-fat milk, fruit juice

## LOW GLYCAEMIC INDEX FOODS

	GI VALUE		GI VALUE		GI VALUE
<b>FRUIT - FRESH</b>		Freshly squeezed orange juice (unsweetened)	50	Four bean mix	37
Apple	38	Pineapple juice	46	Red kidney beans	36
Banana	52	<b>VEGETABLES</b>		<b>PASTA &amp; NOODLES</b>	
Grapes	53	Asparagus	0	Fresh rice noodles	40
Kiwi fruit	53	Broccoli	0	Lasagna	53
Mango	51	Capsicum	0	Macaroni	47
Orange	42	Carrot	41	Spaghetti	44
Peach	42	Cauliflower	0	Vermicelli	35
Pear	38	Celery	0	<b>DAIRY</b>	
Plum	39	Cucumber	0	Low-fat chocolate milk	34
Strawberries	40	Lettuce	0	Low-fat fruit yogurt	33
<b>FRUIT - DRIED</b>		Mushrooms	0	Low-fat vanilla ice cream	46
Apple	29	Onions	0	Reduced-fat custard	37
Apricots	30	Snowpea sprouts	0	Skim milk	32
Prunes	29	Spinach	0	<b>MEAT, SEAFOOD AND PROTEIN</b>	
<b>FRUIT - CANNED, NATURAL JUICES</b>		Squash	0	Beef, lean	0
Peach	45	Sweet corn	46	Chicken, skinless	0
Pear	44	Tomato	0	Eggs	0
<b>FRUIT - JUICE</b>		Zucchini	0	Fish	0
Apple juice (unsweetened)	40	<b>BEANS AND LEGUMES</b>		Fish	0
Cranberry juice	52	Baked beans	49	Lamb, lean	0
		Chickpeas	28	Veal, lean	0

More information on choosing low GI foods can be found in *The Low GI Shopper's Guide to GI Values 2007* Prof. Jennie Brand-Miller and Kaye Foster-Powell, published by Hachette Livre Australia © 2006 at \$12.95

# PROTEIN POWER

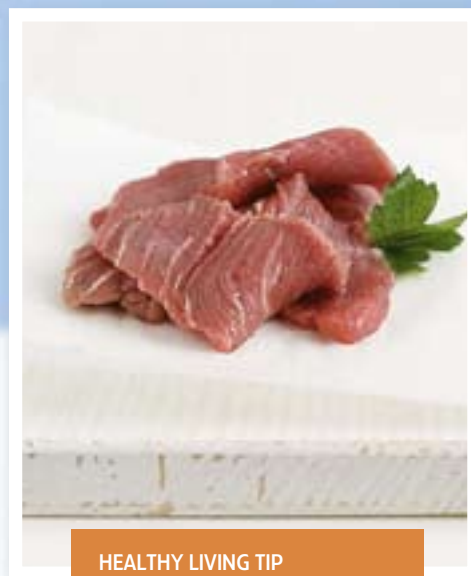
REPLACING SOME HIGHLY PROCESSED AND REFINED FOODS WITH PROTEIN CAN HAVE POSITIVE RESULTS FOR THE SKIN.

Protein-rich foods, such as red meat, fish and poultry, do not increase blood glucose levels, helping to keep insulin levels, hormones and acne under control. As any parent of a fridge-raiding teenager knows, adolescents have very high energy needs. These cannot be sustained simply by switching from a high GI to a low GI diet. Enter protein. Foods such as red meat, chicken, fish and eggs not only help teenagers to control their acne, they also play an essential role in growth and the function of all cells.

## Vital nutrients for growing bodies

Protein-rich foods from animal sources (beef, lamb, fish and poultry) are excellent for providing the body with a wide range of nutrients essential for health and vitality.

- Red meat (beef, lamb and veal) is the richest supplier of well-absorbed iron, which helps move oxygen around our bodies and is essential for normal brain development and function. Red meat is also rich in zinc, which helps to keep the immune system strong. Our bodies absorb both zinc and iron more effectively from meat than from plant foods.
- Red meat, poultry, fish and eggs are excellent sources of vitamin B12, a nutrient not found in plant foods. Vitamin B12 has a special role in protecting our DNA and nervous system.
- Fish and seafood are packed with healthy omega-3 fatty acids, with the second-largest sources in our diet being beef and lamb. Omega-3s help protect the health of the heart.



### HEALTHY LIVING TIP

Teenage skin benefits from a protein-rich diet, so one serve of protein should be included at every meal. At breakfast, cook some eggs, at lunch pack sandwiches with skinless chicken or tuna, and at dinner, serve lean beef or lamb.



“ The Australian Guide to Healthy Eating recommends the inclusion of red meat three to four times a week. ”

DIETARY GUIDELINES FOR CHILDREN AND ADOLESCENTS IN AUSTRALIA

# FOLLOWING THE DIET

Follow these helpful hints to boost levels of protein-rich foods and low GI carbohydrates:



## Power up with protein:

- Include lean beef, lamb or veal at least three to four times a week and fish twice a week for dinner.
- Eat lean protein (red meat, poultry or fish) for lunch daily.
- Aim for three serves of low-fat dairy foods each day.
- Remember to include eggs.

## Go low GI:

To ensure carbohydrate choices are low GI:

- Start your day with high-fibre breakfast cereals, such as porridge, natural muesli or wheat biscuits.
- Swap white bread for wholegrain and rye varieties.
- Choose pasta and basmati rice instead of white rice.
- Add legumes, tofu, lentils or chickpeas to stews and salads.

## Get fresh:

- Aim for three serves of fruit a day.
- Eat at least 2½ cups of vegetables a day, preferably non-starchy ones, such as broccoli and capsicum, which have a lower GI value.

## Have an oil change:

- Use canola and olive oil in cooking.
- Choose a monounsaturated margarine.
- Sprinkle nuts and seeds on cereal.
- Add avocado to a sandwich or salad.

## Limit processed foods:

- Avoid sugary breakfast cereals and ready-to-eat snacks.
- Drink water instead of soft drinks.
- Keep quick meal options at home so you don't send out for takeaway.
- Limit refined white foods, such as bread, cakes and biscuits.

## HEALTHY CHOICE GUIDE

### LEAN PROTEIN-RICH FOODS

#### RED MEAT, FISH, POULTRY AND ALTERNATIVES

##### For lunch

100g serve of any lean-protein source (fish, seafood, chicken, pork, ham, beef, lamb, turkey or eggs) every day.

##### For dinner

3 to 4 serves of lean red meat (150g raw weight) each week.

Fish (150g raw weight) is recommended twice a week.

Skinless chicken or other lean meat (150g raw weight) may be included once a week.

#### DAIRY

(3 serves a day)

1 serve equals:

- 1 cup low-fat milk
- 1 tub (200g) low-fat yogurt
- 200g low-fat custard or dairy dessert
- 1 slice (40g) low-fat cheese

#### FATS AND OILS

(4-6 teaspoons of added oils/fats a day)

1 serve equals:

- 1 teaspoon canola, olive or sunflower oil
- 2 teaspoons margarine
- 20g avocado
- 30g nuts or seeds

### LOW GI CARBS

#### BREADS AND CEREALS

(3 serves a day)

1 serve equals:

- 2 slices wholegrain bread
- ¾ cup high-fibre cereal
- ¾ cup porridge
- ¾ cup natural muesli
- 2 wholegrain crispbreads
- ¾ cup cooked pasta
- ¾ cup Doongara or basmati rice

#### FRUIT

(3 serves a day)

1 serve equals:

- 1 medium piece of fruit
- 2 small pieces of fruit
- 30g dried fruit
- 150g canned fruit in natural juices
- 150ml fruit juice, unsweetened

#### VEGETABLES

(at least 2½ cups a day)

1 serve equals:

- At least ½ cup cooked vegetables
- At least ½ cup salad vegetables
- 1 starchy vegetable (carrot, sweet potato or corn)
- ½ cup legumes

## ASK THE EXPERT

Catherine Saxelby  
Accredited Practising Dietitian



**Q** What makes the findings of this study so significant?

**A** The research

clearly shows that your daily diet can improve acne symptoms. This is highly significant and contrary to current recommendations that say that what you eat plays no role in acne. A healthy diet with low GI carbohydrates and higher levels of protein is now the first line of treatment for anyone suffering from acne, in addition to any cream or ointment your dermatologist recommends. When used for acne in its early stages or for mild to moderate cases, this may mean up to 100 per cent improvement in symptoms.

**Q** What role do protein-rich foods play in skin health?

**A** Dermatologists now believe that teens go through a phase of "insulin resistance", where the body doesn't "recognise" the hormone insulin. This means insulin (as well as sugar) builds up in the bloodstream. This is thought to trigger a chain of hormonal events that ultimately sets the scene for acne. Protein-rich foods, such as lean red meat, fish or eggs, lower the amount of insulin the body makes, helping to reduce excess testosterone (the male hormone linked with acne). By keeping hormone levels "steady", there's less likelihood of acne.

**Q** I was always told to steer clear of chocolate to keep my skin clear. Is this still the case?

**A** For many years, chocolate has been singled out as a villain for bad skin but this new study shows that many everyday starchy foods – such as white bread and potatoes – are more to blame than chocolate. Chocolate has only a moderate GI due to its high fat content. You don't need to avoid it completely but nor should you go overboard as it's kilojoule-dense and easy to over-consume (who stops at just one chocolate?). So enjoy a small piece occasionally as a treat.

## MOVE IT ... regular exercise is as important as diet in helping your teenager to look and feel healthy and maintain healthy skin.

### ● GYM FOR THE SKIN

Exercise helps reduce elevated insulin levels, which increase certain hormones known to contribute to acne. How? By improving the body's sensitivity to insulin. The result? Less insulin is needed to maintain blood glucose levels. Yet that's not the only way exercise keeps our skin in shape. During and after working out, our circulation increases, helping the bloodstream to deliver more oxygen and nutrients to the skin, enhancing skin repair and new cell growth.

### ● MAKE EXERCISE AN OPPORTUNITY

The National Physical Activity guidelines recommend engaging in 30 minutes of physical activity on most days. This should be of moderate intensity – for example, a brisk walk or session of cycling, where you have enough breath to talk, but not to sing. Are you having trouble motivating your teenager to move? Encourage three 10-minute bursts of activity each day, such as rope skipping, jumping on the trampoline or walking to the shops. They will still get all the health benefits of exercise, but be more easily motivated.

### ● GET THE TEAM SPIRIT

As a team player, your child will feel motivated to keep up training and work harder while improving motor skills, co-ordination and reflexes. They will look forward to the social aspects of exercise and benefit from burning off steam. Consider sports such as soccer, hockey, rowing, volleyball, basketball, football and netball during different seasons.

### ● FAVOUR THE FUN FACTOR

There are plenty of fun ways the entire family can stay fit together, so don't just stick to obvious activities, such as throwing a frisbee or playing a game of cricket. Put on some music and have a dance-athon to see who can go



the longest without a break. Enjoy family relays in the backyard or washing the car together. If your teenager is a couch potato, suggest a 15-minute walk while they listen to their iPod – they'll be so busy enjoying the music, they'll hardly notice they're moving.

### ● BEAT WORK-OUT BOREDOM

Variety is the key to keeping exercise interesting. So if your child is flagging with tennis, suggest Tae Bo or rollerblading. If basketball is no longer a challenge, buy a pedometer to spur your teenager on to increase their daily steps. Throw a few formal classes in the mix, such as tae kwon do, gymnastics or salsa dancing – the more varied the activities, the more chance your teen will find an exercise they love or are very good at.

### ● CUT COMPUTER TIME

Limiting your teenager's computer and television time to an hour a day is important to getting them moving, but no help at all if they listen to CDs in their room instead. Make it a rule that every afternoon your child has to spend half an hour or more outside being active – whether riding a bike or kicking a soccer ball. On rainy days, engage in indoor activities such as indoor rock climbing or

Regular exercise is critical to maintaining skin health by reducing insulin levels, which in turn lowers certain hormones that kick-start or exacerbate acne.






ice-skating. Why not join in with your kids to keep up your own fitness?

### ● MAKE IT A HABIT

Like breakfast and cleaning teeth, exercise should become a daily routine. Encourage your teenager to get to and from school on foot or walk two stops further before catching the school bus. Every afternoon, as a family, go for a walk, head to the swimming pool or gym or enjoy a game of soccer in the park. Model more active lifestyle habits yourself, such as taking the stairs instead of the lift and getting up to change the television channel.

# Week 1 The Anti-acne Meal Planner

A healthy eating plan, which includes protein-rich foods and low GI carbohydrates, is the best way to combat acne. Try our recommended two-week menu planners with great, healthy recipe choices.

	BREAKFAST	LUNCH	DINNER
DAY 1	<p>2 slices of wholegrain toast with 1 small can of baked beans.</p> <p>1 glass of low-fat milk with cocoa.</p> 	<p><b>Lamb salad</b> 100g diced lean lamb with 1 cup of salad vegetables and 1 tbsp oil-free dressing.</p> <p>1 piece of fresh fruit.</p>	<p><b>Tandoori chicken strips</b> 150g skinless chicken strips cooked in tandoori sauce with 1 cup of vegetables. Serve with <math>\frac{3}{4}</math> cup of steamed basmati rice. <i>Dessert:</i> 1 small bowl of stewed fruit, unsweetened, with 200g low-fat yogurt.</p>
DAY 2	<p>2 boiled eggs and 1 fruit smoothie (blend 1 piece of fresh fruit, <math>\frac{1}{2}</math> cup of low-fat milk, <math>\frac{1}{2}</math> a tub of low-fat yogurt and 1 tsp of honey).</p>	<p><b>Ham and mustard sandwich</b> 2 slices of wholegrain bread with 100g lean ham, <math>\frac{1}{2}</math> cup of salad vegetables and 1 tsp mustard.</p>	<p><b>Vietnamese Beef and Glass Noodle Salad</b> (see recipe opposite). <i>Dessert:</i> 1 small bowl of peaches (canned in natural juices, drained) with 2 scoops of low-fat ice cream.</p>
DAY 3	<p><math>\frac{3}{4}</math> cup high-fibre breakfast cereal with <math>\frac{1}{2}</math> cup of low-fat milk, <math>\frac{1}{2}</math> cup of low-fat yogurt and 1 piece of fresh fruit.</p>	<p><b>Rare roast beef and salad wrap</b> 1 wholemeal pita bread with 100g lean rare roast beef, <math>\frac{1}{2}</math> cup of salad vegetables and 1 tbsp sweet chilli sauce.</p> <p>1 piece of fresh fruit.</p> 	<p><b>Grilled snapper</b> 150g grilled snapper with garlic, ginger and olive oil. Serve with 2 cups of steamed vegetables. <i>Dessert:</i> 1 small bowl of diet jelly with 200g low-fat custard.</p>
DAY 4	<p><math>\frac{3}{4}</math> cup natural untoasted muesli with 200g low-fat vanilla yogurt and slices of fresh fruit.</p> 	<p><b>Salmon and salad sandwich</b> 2 slices of wholegrain bread with 100g salmon (canned in water, drained), <math>\frac{1}{2}</math> cup of salad vegetables and 40g low-fat cheese.</p>	<p><b>Mediterranean Feta Lamb Chops</b> Grill 150g lean lamb chops and 1 bunch of asparagus with lemon juice and olive oil. Scatter cherry tomatoes and reduced-fat feta over the chops. Serve with 1 cup of mixed salad vegetables. <i>Dessert:</i> 1 small bowl of fresh fruit salad.</p>
DAY 5	<p>2 slices of wholegrain toast with 1 tsp margarine, sautéed mushrooms and tomato.</p> <p>200g low-fat yogurt.</p> 	<p><b>Turkey and mayo pita</b> 1 wholemeal pita bread with 100g lean turkey, <math>\frac{1}{2}</math> cup of salad vegetables and 1 tbsp low-fat mayonnaise.</p> <p>1 piece of fresh fruit.</p> 	<p><b>Grilled calamari</b> 150g grilled calamari with 2 cups of salad vegetables and 1 tbsp dressing (garlic, olive oil and balsamic vinegar). <i>Dessert:</i> 1 small bowl of stewed fruit, unsweetened, with 200g low-fat custard.</p>
DAY 6	<p>2 slices of wholegrain toast, 40g low-fat ricotta cheese, cinnamon, drizzle of honey.</p> <p>1 piece of fresh fruit.</p> 	<p><b>Sweet corn, spinach and mushroom omelette</b> 2 eggs, 40g low-fat grated cheddar cheese, <math>\frac{1}{2}</math> cup of sweet corn and <math>\frac{1}{2}</math> cup of spinach and mushrooms.</p>	<p><b>Steak Sandwich</b> (see recipe opposite) with <math>1\frac{1}{2}</math> cups of salad vegetables and 1 tbsp oil-free dressing. <i>Dessert:</i> 1 bowl of stewed fruit.</p>
DAY 7	<p>2 slices of fruit and spice toast with 1 tsp margarine.</p> <p>1 piece of fresh fruit.</p> <p>1 glass of low-fat milk.</p>	<p><b>Chicken and pasta salad</b> 100g skinless chicken, 1 cup of salad vegetables, <math>\frac{3}{4}</math> cup of cooked pasta and 1 tbsp oil-free dressing.</p>	<p><b>Garlic and Oregano Roast Lamb</b> (see recipe opposite) with <math>1\frac{1}{2}</math> cups of roasted vegetables. <i>Dessert:</i> 1 small bowl of fresh fruit salad and 2 scoops of low-fat ice-cream.</p>

MENU PLANNER

## SNACKS

Have three snacks a day in addition to main meals by choosing one from each of the groups below:

### LOW GI CARBS

- 30g or a handful of nuts
- 2 slices of fruit and spice toast with 1 tsp margarine
- 1 cup of popcorn, plain and unsalted

### LOW-FAT DAIRY

- 200g low-fat yogurt
- 200g low-fat frozen yogurt
- 200ml low-fat drinking yogurt

### FRUIT

- 1 piece of fresh fruit
- 30g dried fruit (apricots, apple, peaches, pears, prunes)
- 150g canned fruit, in natural juices, drained

“Red meat is the richest supplier of well-absorbed iron. It is also rich in zinc, which helps to keep the immune system strong.”



### STEAK SANDWICH

Serves 4. Preparation time 10 minutes.  
Cooking time 15 minutes.

- 4 x lean sirloin steaks (600g)
- 1 tablespoon olive oil
- 1 red onion, sliced
- 8 slices sourdough bread, toasted
- 1 cup baby spinach leaves
- 2 tomatoes, sliced
- ½ avocado, sliced
- ⅓ cup beetroot dip

- 1 Brush steaks with oil.
- 2 Grill steaks for 3 minutes on each side or until cooked to your liking.
- 3 Remove steaks from grill and wrap loosely in foil – rest for 5 minutes.
- 4 Gently cook onion on grill plate until soft and golden. Set aside.
- 5 Using the toasted sourdough bread, make sandwiches with the baby spinach, tomatoes, avocado, steaks, cooked onion and beetroot dip.

#### Per serving

1900kJ; 44g protein; 28g carbohydrate; 18g total fat (4g saturated fat).

#### Serving suggestion

Serve steak sandwich with salad vegetables including alfalfa sprouts, celery, cucumber and mixed salad greens with oil-free dressing.

### VIETNAMESE BEEF AND GLASS NOODLE SALAD

Serves 4. Preparation time 20 minutes.  
Cooking time 15 minutes.

- 600g lean beef strips
- 1 tablespoon olive oil
- 2 spring onions, sliced
- 1 red capsicum, sliced
- 1 punnet cherry tomatoes, halved
- ½ cup snowpea sprouts
- 2 cups mixed salad greens
- 3 cups vermicelli (glass) noodles, cooked
- 2 tablespoons mint leaves

#### DRESSING

1 tablespoon each of finely chopped lemon grass, finely chopped seeded red chilli, crushed garlic, fish sauce, rice-wine vinegar and freshly squeezed lemon juice.

- 1 Brush beef strips with oil and brown (in 3 batches) in a preheated frying pan.
- 2 Add spring onions, capsicum, cherry tomatoes, snowpea sprouts, mixed salad greens and noodles.
- 3 DRESSING: Combine all ingredients in a jug.
- 4 Pour dressing over salad, toss well and scatter with mint leaves.

#### Per serving

1500kJ; 43g protein; 25g carbohydrate; 8g total fat (2g saturated fat).

### GARLIC AND OREGANO ROAST LAMB

Serves 6. Preparation time 10 minutes (plus marinate overnight). Cooking time 40–45 minutes (plus 20 minutes rest time).

- 1 kg boneless lean lamb

#### MARINADE

- 1 tablespoon olive oil
- 1 teaspoon oregano, dried
- 1 teaspoon basil, dried
- 2 cloves garlic, crushed
- juice and zest of 1 lemon
- ½ cup red wine

- 1 Preheat oven to moderate (180°C/160° fan-forced).
- 2 MARINADE: Combine marinade ingredients in a plastic bag.
- 3 Add the lamb to the marinade and mix well.
- 4 Remove the air and seal the bag with a twist tie. Refrigerate overnight, if possible.
- 5 Drain the lamb and place on a rack in a roasting pan. Reserve the marinade.
- 6 Roast in a moderate oven for 40–45 minutes, or until cooked to your liking.
- 7 Baste twice with the extra marinade during cooking.
- 8 Remove lamb from oven, wrap in foil and rest for 20 minutes before carving.

#### Per serving

1163kJ; 33g protein; less than 1g carbohydrate; 13g total fat (5g saturated fat).

#### Serving suggestion

Serve lamb with roasted vegetables including sweet potato, zucchini, carrots and onions.

Leftovers can be used for sandwiches/wraps.

#### HELPFUL LIVING TIP

Save time by using pre-prepared commercial sauces, marinades and stocks.

- These recipes are a guide, add variety by choosing your own favourite vegetables, herbs and spices.

“These delicious and tasty lean meat meals will save you time in the kitchen and are great for the kids on weeknights.”



### HERB-CRUSTED LAMB CUTLETS

Serves 4. Preparation time 15 minutes.  
Cooking time 30–45 minutes.

- 4 x 3 frenched lamb cutlet racks (600g)
- ¼ cup fresh wholemeal breadcrumbs
- 1 tablespoon fresh rosemary, finely chopped
- 1 tablespoon fresh flat-leaf parsley, finely chopped
- 2 teaspoons fresh thyme, finely chopped
- 3 cloves garlic, crushed
- 3 teaspoons pesto

- 1 Preheat oven to moderately hot (200°C/180°C fan-forced).
- 2 Combine breadcrumbs, herbs, garlic and pesto in a bowl.
- 3 Press breadcrumb mixture into lamb racks, cover; refrigerate until required.
- 4 Place lamb in shallow baking dish and roast uncovered for 10 minutes.
- 5 Reduce oven temperature to 150°C/130°C fan-forced; cook for a further 15–20 minutes until lamb is cooked as desired.
- 6 Stand lamb for 5 minutes before cutting racks into cutlets.

#### Per serving

1210kJ; 33g protein; 3g carbohydrate;  
16g total fat (6g saturated fat).

#### Serving suggestion

Serve cutlets with roasted vegetables, including red onion wedges, zucchini and sweet potato.

### SPAGHETTI BOLOGNESE

Serves 4. Preparation time 20 minutes (including cooking spaghetti).  
Cooking time 1 hour.

- 1 tablespoon olive oil
- 1 onion, finely diced
- 2 cloves garlic, crushed
- 1 stick of celery, finely chopped
- 1 carrot finely chopped
- 600g lean beef mince
- ¼ cup tomato paste
- 425g can of peeled tomatoes
- 1 cup salt-reduced beef stock
- 2 bay leaves
- ½ teaspoon fresh basil, finely chopped
- 1 tablespoon fresh oregano
- 3 cups of spaghetti, cooked

- 1 Cook onion, garlic, celery and carrot in a pan with a little oil over medium heat until tender.
- 2 Add beef mince, stirring constantly until well browned.
- 3 Stir in tomato paste, peeled tomatoes, beef stock, bay leaves, basil and oregano. Cover and simmer gently for 40 minutes.
- 4 Add sauce to cooked spaghetti.

#### Per serving

1870kJ; 38g protein; 36g carbohydrate;  
16g total fat (5g saturated fat).

#### Serving suggestion

Serve spaghetti with salad vegetables, including capsicum, roma tomatoes, Spanish onions and mixed salad greens with Italian oil-free dressing.

### CREAMY BEEF STROGANOFF

Serves 4. Preparation time 15 minutes.  
Cooking time 60–75 minutes.

- 600g lean rump steak
- wholemeal flour
- pinch nutmeg
- 1 tablespoon olive oil
- 1 onion, peeled and finely chopped
- 1 tablespoon tomato paste
- ½ cup dry white wine
- 375ml salt-reduced beef stock
- 1 cup button mushrooms, sliced
- 200ml extra light sour cream

- 1 Slice the beef into strips across the grain.
- 2 Combine flour and nutmeg and use mixture to lightly dust beef strips.
- 3 Brush beef strips with oil and brown in batches.
- 4 Remove beef strips from pan.
- 5 Add the onion to the pan and sauté until transparent.
- 6 Add tomato paste, wine and stock, then return beef strips to pan.
- 7 Bring to the boil and simmer, gently for 45–60 minutes or until beef strips are tender.
- 8 In the last 15 minutes, add the mushrooms and light sour cream.

#### Per serving

1600kJ; 33g protein; 7g carbohydrate;  
18g total fat (7g saturated fat).


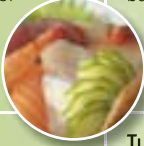




#### Serving suggestion

Serve beef stroganoff with basmati rice and steamed vegetables, including green beans, carrots and cauliflower.

• These recipes are a guide, add variety by choosing your own favourite vegetables, herbs and spices.

# Week 2 The Anti-acne Meal Planner

Our Week 2 menu planner is filled with meals that include healthy protein-rich foods and low GI carbohydrates for optimal skin health. Try our recommendations and delicious recipe choices.

	BREAKFAST	LUNCH	DINNER
DAY 1	<p>2 slices of wholegrain toast with 1 tsp margarine and Vegemite.</p> <p>1 glass of low-fat milk.</p> <p>1 piece of fresh fruit.</p> 	<p><b>Roast lamb wrap</b></p> <p>1 wholemeal pita bread with 100g leftover roast lamb with ½ cup of tabbouleh and 1 tbsp hummus.</p>	<p><b>Baked chicken and thyme</b></p> <p>150g skinless chicken breast fillets baked in rosemary, thyme, lemon juice and olive oil, served with ½ a sweet potato, roasted, and 1½ cups of steamed vegetables.</p> <p><i>Dessert:</i></p> <p>1 small bowl of peaches (canned in natural juices, drained) with 200g of low-fat custard.</p>
DAY 2	<p>1 fruit smoothie (blend 1 piece of fresh fruit, ½ cup of low-fat milk, ½ a tub of low-fat yogurt and 1 tsp of honey).</p>	<p><b>Salmon, avocado and salad sandwich</b></p> <p>2 slices of wholegrain bread with 100g salmon (canned in water, drained), avocado and ½ cup of salad vegetables.</p> 	<p><b>Creamy Beef Stroganoff</b> (see recipe opposite) with 1½ cups of steamed vegetables and ¾ cup of steamed basmati rice.</p> <p><i>Dessert:</i></p> <p>1 small bowl of stewed fruit, unsweetened, with 200g low-fat yogurt.</p>
DAY 3	<p>1 small bowl of fresh fruit salad with 200g low-fat yogurt.</p>	<p><b>Ham, tomato and cheese roll</b></p> <p>1 wholegrain roll with 100g lean ham, a slice of low-fat cheddar cheese, 1 tbsp chutney, 1 tomato and ½ cup of shredded lettuce.</p>	<p><b>Tuna pasta</b></p> <p>150g tuna (canned in water, drained) with 1½ cups of vegetables (cherry tomatoes, zucchini and asparagus), 2 tsp tomato paste and 1 tsp olive oil tossed through ¾ cup of cooked pasta.</p> <p><i>Dessert:</i></p> <p>1 small bowl of fresh fruit salad.</p>
DAY 4	<p>¾ cup natural untoasted muesli with 200g low-fat vanilla yogurt, 5 strawberries and 1 tsp of passionfruit pulp.</p>	<p><b>Chicken Greek salad</b></p> <p>100g grilled skinless chicken breast with 40g of low-fat feta cheese and 1 cup of salad vegetables dressed in 1 tsp balsamic vinegar and 2 tsp olive oil. Serve with 1 wholemeal pita bread.</p> 	<p><b>Herb-Crusted Lamb Cutlets</b> (see recipe opposite) with 1½ cups of roasted vegetables.</p> <p><i>Dessert:</i></p> <p>1 small bowl of stewed fruit, unsweetened.</p>
DAY 5	<p>¾ cup high-fibre breakfast cereal with 1 cup of low-fat milk and 1 piece of fresh fruit.</p> 	<p><b>Egg and salad sandwich</b></p> <p>2 slices of wholegrain bread with 2 hard-boiled eggs, 2 tsp low-fat mayonnaise and ½ cup of salad vegetables.</p>	<p><b>Barbecued salmon</b></p> <p>150g barbecued salmon with 2 cups of steamed vegetables.</p> <p><i>Dessert:</i></p> <p>1 small bowl of pears (canned in natural juices, drained) with 2 scoops of low-fat ice-cream.</p>
DAY 6	<p>150g mixed berries with 200g low-fat berry yogurt.</p> 	<p><b>Turkey roll</b></p> <p>1 wholegrain bread roll with 100g lean turkey, a slice of low-fat Swiss cheese, 1 tsp cranberry sauce and ½ cup of salad vegetables.</p> 	<p><b>Spaghetti Bolognese</b> (see recipe opposite) with 1½ cups of salad vegetables and 1 tsp oil-free dressing.</p> <p><i>Dessert:</i></p> <p>1 piece of fresh fruit.</p>
DAY 7	<p>2 slices of wholegrain toast with 1 tsp margarine, 2 poached eggs, ½ cup of baby spinach leaves and 1 tomato.</p> <p>1 piece of fresh fruit.</p> <p>1 glass of low-fat milk.</p>	<p><b>Tuna and four-bean salad</b></p> <p>1 cup of four-bean mix and 100g tuna (canned in water, drained), with 1 tsp oil-free dressing. Serve with 1 wholegrain roll.</p> <p>200g low-fat yogurt.</p>	<p><b>Lemon and Rosemary Lamb Kebabs</b></p> <p>Thread 150g diced lean lamb fillet and red onion wedges on skewers, brush with garlic, lemon rind and juice, rosemary and olive oil. Barbecue and serve with 1 cup of salad vegetables and 1 tsp balsamic vinegar.</p> <p><i>Dessert:</i></p> <p>1 small bowl of fresh fruit salad.</p>
SNACKS	<p><b>Have three snacks a day in addition to main meals by choosing one from each of the groups below:</b></p> <p><b>LOW GI CARBS</b></p> <ul style="list-style-type: none"> <li>• 2 grainy crispbreads or 2 slices of wholegrain bread/toast with Vegemite, hummus, baked beans or vegetable soup</li> <li>• 30g or a handful of nuts</li> </ul> <p><b>LOW-FAT DAIRY</b></p> <ul style="list-style-type: none"> <li>• 250ml low-fat milk</li> <li>• 200g low-fat custard with diet jelly</li> <li>• 1 mug of hot chocolate made with 250ml low-fat milk and 1 tsp cocoa</li> </ul> <p><b>FRUIT</b></p> <ul style="list-style-type: none"> <li>• 1 piece of fresh fruit</li> <li>• 30g dried fruit (apricots, apple, peaches, pears, prunes)</li> <li>• 150g canned fruit, in natural juices, drained</li> </ul>		

These suggestions serve one person.



## KIDS IN THE KITCHEN

THE MORE YOUR CHILD IS INVOLVED IN CHOOSING RECIPES AND PREPARING FOOD, THE MORE THEY WILL ENJOY MEALTIMES AND INVEST IN HEALTHY EATING. TRY THESE TIPS.

**Make dinner a ritual:** Give your teenager the job of setting the table with cutlery, water glasses, a small bunch of flowers from the garden and some appealing napkins.

**Sit at the table:** Turn off the television and enjoy family talk during dinner. Studies show that in families where meals are eaten at the dinner table, children eat more nutritious meals and a greater variety of foods.

**Plan menus together:** Sit down with your children and flick through healthy cookbooks, so that they help to choose what meals the family will eat each week. Involve them in preparing the meal and always compliment them on a job well done.

### TASTY TEEN MEALS

- **Stir-fries** Dice garlic, ginger, carrots, mushrooms, broccoli, corn spears and either lean beef, lamb, veal or chicken strips and toss in a wok, then experiment with sauce combinations including fish oil, oyster sauce, sweet chilli sauce and kecap manis.
- **Beef tacos** Sauté onion, then add canned tomatoes, lean beef mince, kidney beans and chilli and spoon into taco shells. Top with shredded lettuce and a sprinkling of grated cheese.
- **Moroccan lamb chops** Coat lamb with a pre-bought tagine spice mix, and grill. Serve with vegetables on the side.
- **Lamb and vegetable skewers** Skewer large chunks of lamb between diced pieces of onion, capsicum, mushroom and marinade with a dash of olive oil, soy sauce and garlic. Barbecue and serve with a mixed leaf salad.

# eating out?

## HEALTHIER OPTIONS FOR TEENS

EATING HEALTHY MEALS IS OFTEN EASIER DURING THE WEEK, WHEN THERE IS A SET ROUTINE. HOWEVER, IT'S TRICKIER ON WEEKENDS, WHEN THE FAMILY EATS TAKEAWAY OR TEENAGERS ARE OUT WITH FRIENDS.

That's why it's so important that your teenager understands how to make healthy food choices.

### HEALTHY FOOD RULES

- Request sauces and dressings on the side and use only a little.
- Limit dishes that are deep-fried, pan-fried, battered or crumbed.
- Skip extras such as fries and white bread rolls in favour of vegetables or a side salad.
- Finish with a skim hot chocolate instead of dessert.

### ASIAN FOOD

#### Chinese

**Choose:** Clear soups, steamed appetisers, steamed rice and stir-fries with vegetables, tofu, beef, lamb, chicken or seafood.

**Limit:** Prawn crackers and toast, fried rice, sweet-and-sour or lemon-sauce dishes and deep-fried foods such as spring rolls, egg rolls, dim sims and fried ice cream.

#### Japanese

**Choose:** Sushi and sashimi, miso soup, ramen noodle dishes, and teriyaki or udon noodles in broth.

**Limit:** Deep-fried dishes such as katsu-don (fried pork) or tempura (seafood or vegetables in batter).

#### Vietnamese

**Choose:** Pho – a rice-noodle soup with lean pieces of beef or chicken with bean shoots, chilli and limes. Other good choices include Vietnamese rice paper rolls, steamed rice and stir-fries.

**Limit:** Spring rolls and fried noodle dishes.

#### Thai

**Choose:** Soups, such as Tom Yum Goong, stir-fries, satay skewers, Thai beef salad and hot pots.

**Limit:** Coconut-based curries, fried noodles such as Pad Thai and deep-fried entrees such as fish cakes.

#### Indian

**Choose:** Yogurt-based curries, rogan josh (lamb or goat in a tomato-based sauce) and tandoori, dishes with lentils, chickpeas and vegetables. Eat with steamed basmati rice.

**Limit:** Creamy curries, such as korma, and butter sauces, deep-fried samosas, curry puffs, pappadams and oily breads, such as naan.

### EUROPEAN FOODS

#### Italian

**Choose:** Minestrone, pasta with tomato-based sauces such as Bolognese, with fresh fruit or sorbet for dessert.

**Limit:** Lasagne, creamy risottos or pasta sauces such as boscaiola, garlic bread, fried mozzarella sticks or extra parmesan cheese.

#### Greek

**Choose:** Dolmades (stuffed vine leaves), grilled lamb or seafood dishes, accompanied with Greek salad.

**Limit:** Cheese dishes such as moussaka, fried foods such as calamari and baklava.



## SMARTER SKIN CARE

Dr George Varigos, head of dermatology at Royal Melbourne Hospital and Royal Children's Hospital, has 25 years' experience

in the area of dermatology. For many of his patients suffering from moderate to severe cystic acne, he and his colleagues are often

seen as a final resort. He has been advising his own patients to change their eating behaviour with positive results.

**Dr George Varigos' recommendations: Simple steps to clear, healthy skin**

TYPE OF ACNE	THE TEENAGE ANTI-ACNE DIET	EXERCISE	TREATMENTS	DID YOU KNOW?
MILD ACNE	✓	✓	Topical treatment + oil-free moisturiser.	The 4 key anti-acne active ingredients to look for in topical treatments are: <ul style="list-style-type: none"> <li>• Benzoyl peroxide.</li> <li>• Salicylic acid.</li> <li>• Retinoic acids.</li> <li>• Alpha-hydroxy acids.</li> </ul>
MODERATE	✓	✓	See GP. Topical treatment + oil-free moisturiser + oral antibiotics.	Antibiotics reduce the levels of bacteria, which cause inflammation in the skin.
SEVERE	✓	✓	See dermatologist. Topical treatment + oil-free moisturiser + oral retinoids.	Oral retinoids can only be prescribed by a dermatologist. They work by reducing sebum production and unblocking pores.

## skin basics

1. Wash skin twice a day with a gentle cleanser or antiseptic wash.
2. Avoid scrubbing the skin, which may make it worse.
3. Apply topical treatments to all areas affected by acne, not just on individual spots.
4. No matter how tempting, don't squeeze pimples.
5. Give topical treatments and medications time to work – it usually takes two months to see improvements.



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For more information, visit [www.themainmeal.com.au](http://www.themainmeal.com.au), or call 1800 550 018 for additional copies.

These are guidelines only, and are not intended as medical or nutritional advice.  
If you have specific health or dietary concerns, discuss them with your doctor or dietitian.