

VITAL

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NEWS, VIEWS & INFORMATION FOR NUTRITION PROFESSIONALS

BROUGHT TO YOU BY MEAT & LIVESTOCK AUSTRALIA, NUTRITION

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Welcome to the Summer issue of *Vital*.

Research shows there is a trend toward Australians becoming increasingly interested in cooking healthy family meals made from scratch using fresh ingredients.

In this issue of *Vital* dietitians, Dr Clare Collins and Susie Burrell identify that a lack of cooking skills can be a barrier to families reaping the benefits of the family meal. They share with us the strategies they use to encourage their own patients to see the family meal as a possible and necessary part of everyday life.

We also explore the impact on nutrient status when young people leave home for the first time to go to university. With a lack of cooking knowledge and a heavy reliance on food served up in college dining rooms, dietitian Gillian Woodward is looking to make a difference at the University of New England.

In response to increasing evidence linking cooking knowledge with families eating together and improved health, *Vital* provides you with the kebab basics. Pass these simple tips onto your clients to help them create nutritious and healthy family meals.

As always I hope you enjoy this issue of *Vital* and I look forward to your feedback and ideas for future issues.

Lastly we would like to introduce to you our new nutrition team member, Emily Walker, Project Officer, Nutrition. She will be responsible for co-ordinating MLA's Human Nutrition Research and Development Program.

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Set the table

Research has been building on the varied benefits of families sitting down together for a meal; now the focus is on encouraging families to actually make it happen.

It's not hard to convince Australians that eating a meal together as a family is a good thing with the primary value in family dining being one of connection and communication. However research shows that there is more to family meals than just togetherness. The benefits range from improved nutrition to improved behaviour and school outcomes.

Benefits of the family meal

Nutritional

From a nutrition perspective, the frequency of home-cooked family meals is a good predictor of nutrient intake in children and adolescents. Researchers suggest that this is because family meals tend to include more nutritious foods such as fruit and vegetables, resulting in higher intakes of key nutrients including protein, calcium, iron, folate and fibre.¹

Behavioural

Family rituals such as the family meal have been shown to have a number of behavioural and psychological benefits for family members including better coping skills, higher levels of family cohesion and reduced levels of anxiety.² A study in the US also found that teenage girls in families that eat dinner together at least five times a week had a lower prevalence of extreme weight control behaviours.¹

Educational

Not only is the family meal time a perfect opportunity for members to communicate, work out their problems and plan their activities, research has also shown there are academic benefits. Adolescents in families that eat dinner together on a regular basis were found to exhibit better school performance; and reduced risk taking behaviour, including alcohol and drug use and smoking.³

Parental modelling

Families who eat meals together regularly have a positive impact on the eating habits of its younger members. This is because the family meal allows children to observe food preparation, cooking and eating helping them to develop healthy habits which are carried throughout life. Parents have an opportunity to role model healthy eating patterns, table manners, and new food experiences with their children.⁴

Barriers to family dining

The value of family meals is well understood, but some families struggle to make them happen. Often the problem is a simple parental inability to set the agenda. Clare Collins, Associate Professor in Nutrition and Dietetics at the University of Newcastle believes that the current cultural environment has stripped parents of their authority and made setting down rules difficult. "Our culture has become very child-centric," she explains. "Keep the kids happy at any cost. You have mothers in the supermarket asking the kids what they want for dinner. By that stage, when you're asking children to decide the dinner, you've already lost."

The challenges presented by a child-centric culture are augmented by "long working hours, late nights, different schedules, over-committed kids and split families," says Susie Burrell consultant dietitian and specialist weight management dietitian at The Children's Hospital at Westmead. Yet the biggest barrier to the family meal, according to Burrell, is in parents not having the skills to be able to structure and plan a week's worth of meals to take into account the family's schedules, meal preparation times, budget and nutritional needs.

"The generation in their mid to late 30s, now with children, were the microwave kids," says Burrell. "Their own mothers were often working and they just didn't pick up cooking skills." And, as she points out, it's not just cooking skills, but household management skills that families need: the knowledge of how to make a roast; how to turn leftovers into another meal; how bolognese can be served in surprising ways; or how to have a meal on the table in 15 minutes.



New skills and solutions

Yet even with these challenges, a recipe for family mealtimes is not impossible; but it does require a shift in priorities.

Collins plays the role model card, emphasising to parents that they have only one chance at being role models for their children. "I ask people what sort of parenting they want to hand on to their children," she says. "If they value it [family meals] they have to make it happen."

Burrell recommends that families make it happen by starting slowly, enshrining Sunday night as an unbreakable family dinner date. Everyone needs to be home, no excuses. "It's also good to get Dad involved with preparing dinner once a week, with the kids helping out too."

While this suggestion might not be too welcome when it comes from within the family, healthcare professionals are in a privileged position to affect change in family routines by making suggestions about doing things differently to impact on the whole family's health.

3 rules for making the family meal happen:

- 1. Be prepared**
Buy ingredients for quickly assembled nutritious meals weekly from the supermarket.
- 2. Value the family meal**
Everybody who is at home sits together at the table for dinner with the television off. There are no excuses.
- 3. View dinner as an unbreakable dinner date**
Make dinner as early as practicable. Anyone not home can have their meal reheated later.

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Emissions trading and agriculture

In June 2010 the Australian Government will introduce greenhouse gas emissions trading as part of its Carbon Pollution Reduction Scheme (CPRS). Vital talked with Mick Keogh, Executive Director from the Australian Farm Institute (AFI), about the issues and likely impacts.

The CPRS to be introduced in 2010 will be a 'cap-and-trade' system using the principle of supply and demand to drive innovation and efficiencies to meet greenhouse gas (GHG) targets. The government will set a limit on the amount of greenhouse gases that can be emitted (the 'cap') and issue permits for emissions up to that limit. Liable companies will be able to buy and sell ('trade') permits to cover their emissions, within the overall cap.

Will agriculture be included?

Agriculture will be excluded from the CPRS in 2010, potentially to participate post 2015. Consultation and research is required to understand the most efficient and effective way for the sector to contribute to a reduction in national greenhouse gas emissions. An important issue for agriculture's participation in the CPRS, explains Keogh, is the carbon accounting system.

For an effective emissions trading system, we need to be able to reliably and accurately measure emissions to create units that can be traded. In Australia, this is not currently possible for agriculture. Practical methods for estimating greenhouse gas emissions are required before agriculture can be included in the CPRS.

Research is being conducted into how to accurately measure emissions at the farm level taking into consideration differences according to regions, production systems, farm types, management practices and soils. Similarly, more research is required to understand the contribution agriculture makes to carbon sequestration through the growth of pasture and crops which are not currently included in the carbon accounting rules.

Key points

- Agriculture will be excluded from the CPRS until at least 2015 to better understand how to address related issues and consequences.
- Practical methods of measuring emissions in agriculture need to be developed.
- Emissions trading will increase farm costs, impacting on profitability and ultimately the viability of small-scale farms.
- The influence of emissions trading on the choice of crop may have important economic and environmental consequences.

Likely impacts of the CPRS

• Farm costs

Nonetheless the CPRS in 2010 will have an impact on farms. "Costs will rise due to higher prices for electricity, fuel, fertilisers and virtually every product and service delivered to the farm," says Keogh. Modelling by the Australian Farm Institute (AFI) suggests a resulting reduction in average farm cash incomes of between 3 and 9 per cent by 2016.

• Smaller farmers

Keogh predicts that this will put increased pressure on smaller farmers to amalgamate or sell to larger operations who will be better able to cope with these changes. "Small-scale farms are already under pressure," he says, "they have lower profit margins and are those most affected by rising costs. We could see small-scale farms, which are important to local communities and local and regional production, lost."

• Type of agriculture

Currently, most of Australian agriculture is mixed where different products complement each other - crops are rotated with pastures and grazing. If farm profitability declines, farmers may convert significant areas of farming land from food crops to permanent carbon sink forests. The CPRS green paper proposes that forestry be included in emissions trading from the outset in 2010. This may encourage valuable agricultural land to be re-allocated to tree plantations for carbon sequestration.

• Environment and rural communities

Keogh warns of the consequences of a large-scale shift from food production to plantation forest, "for natural resource management, rainfall runoff, bushfire risk, biodiversity and impacts on pest plant and animal populations." In addition, there may be economic consequences including higher prices for some food items and the subsistence of certain rural communities.

References

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Iron on the menu

A study finds that university students are at risk of iron deficiency through their food choices, and a local dietitian hopes to affect institutional change.

When Jamie Oliver attempted to put freshly prepared, healthy food into British school canteens his battles made for riveting television viewing. Now Armidale dietitian Gillian Woodward is getting to find out if she can also make healthy dietary changes for students. The students in her sights are those living in the residential colleges at the University of New England (UNE). She is hoping to make a difference by being part of the committee responsible for developing the criteria for catering services at the colleges. Her new role comes in response to a request from the new Residential Services administration who were interested in the outcomes of a study, led by Dr Suzanne Robertson from the UNE Medical Centre, on the incidence of iron deficiency among female students.

Doctor takes action

The study was triggered by Dr Robertson's observation that many of the young patients at the UNE Medical Centre were presenting with symptoms of iron deficiency. "I had seen increasing numbers of young people adopting a vegetarian lifestyle without knowing anything about it except to remove meat from their diet," she explains. "Coupled with that is the fact that this is a rural university with a heavy contingent of students living in residential colleges as well as independently. They are away from home for the first time, and are coming to grips with issues of choice, budget and cooking skills."

The study

A questionnaire was used to identify female students attending the UNE Medical Centre who may be at risk of iron deficiency. Four risk factors were assessed including:

- red meat eaten twice or less per week
- previous history of iron deficiency
- heavy menstruation
- current symptoms of iron deficiency.

Of the 358 participants who participated in the study, 61 per cent were identified as being at risk. Of these, 48 per cent had red meat less than twice a week. They were offered a full blood count and iron studies.

Of the 165 students who had blood tests, 26 per cent were found to be iron deficient and one student had anaemia. In the overall cohort, 12 per cent were iron deficient.

The lower prevalence of iron deficiency reported in this study, compared to other studies^{1,2}, may be explained by the high proportion of students who did not have the recommended blood tests and the high incidence of recent infections (26 per cent) which may have transiently raised ferritin levels.

Barriers to red meat consumption

Woodward believes the increased risk of iron deficiency in students stems from two issues: misinformation and unappealing food at the college dining rooms. "Students responses indicated that most commonly they were avoiding the red meat served because it looked unappetizing" she says. The other aspect of the problem is that many students are simply not aware of the nutritional value of red meat. "They believe that it is healthier to cut red meat out of their diet," she says. "They would rather take protein powders from the gym, thinking that these will be a better substitute for meat protein. They just don't realise how many other vital nutrients meat provides apart from protein."

Woodward is hoping to influence both strands of the problem through her involvement with the catering tender. "What I'd like to see is the catering meet minimum criteria based on the Australian Guide to Healthy Eating. That would be a good starting point!" Hopefully she is as successful as Jamie Oliver.


References

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Kebab basics

Help your clients reap the benefits of a nutritious well-balanced meal by giving them these kebab basics.



1. Choose your skewer:
Metal skewers for cubes of meat

Bamboo skewers for thin, long strips of meat



2. Choose your lean cut of red meat:
For cubes choose beef rump or leg of lamb

For thin, long strips use either topside or blade



3. Choose your vegies
Thread chunks of seasonal vegetables in between the meat e.g.
Capsicum
Cherry tomatoes
Eggplant
Mushrooms
Spanish onions
Zucchini



4. Choose your flavours
Brush the skewered meat and vegetables with 1 tablespoon of oil and your choice of flavourings:
Rosemary and thyme
Basil and balsamic vinegar
Oregano and lemon
Coriander, lime and mint



Master recipe Kebab basics

Kebabs are a simple and delicious summer meal, easily adapted to a range of meats and seasonal vegetables. Follow our step-by-step pictures to make a nutritious meal the whole family will enjoy.

- Place the meat on a chopping board and remove any of the silver skin on the surface of the meat with a sharp knife. If using long strips of the meat use Don't need cubes, if using bamboo skewers cut the meat into thin, long strips.
- Thread around 4-5 cubes or 1-2 long strips of meat onto each skewer.
- Brush the skewered meat lightly with oil, herbs and other flavourings before adding to the grill or barbecue plate or pan.
- Add the skewers to a hot pan or grill and cook for 2-3 minutes on each side for 10-12 minutes on each side.
- Seasoning: Coat the meat with oil and leave to marinate for 5-10 minutes before cooking.

Best cuts for Kebabs

Beef	Lamb	Veal
Rump - cubes	Shoulder - cubes	Rump - cubes
Flank - cubes	Leg - cubes	Shoulder - cubes
Brisket - strips	Shoulder - strips	Shoulder - strips
Blade - strips	Blade - strips	Blade - strips

Back to Basics Recipe

Using mince
Use 1kg of lean beef mince or use a mix of beef and lamb mince. Add to a large bowl and mix with 1 cup of breadcrumbs, 1 egg, 1 cup of oil and seasonings. Mix well and shape into 1cm thick patties. Cook in a hot pan for 4-5 minutes on each side.

Adding vegetables to the skewer
Use 2 cups of vegetables to the skewer. Cut vegetables to the size of the meat cubes. Use capsicum, onion, mushrooms, cherry tomatoes, and zucchini. Thread the vegetables onto the skewers between the meat cubes.

Flavouring with herbs and spices
Use 1 cup of herbs and spices to the skewer. Use rosemary, thyme, oregano, and lemon juice. Brush the skewers with the mixture before cooking.

Cooking Tip
Cook the skewers on a hot pan or grill for 2-3 minutes on each side for 10-12 minutes on each side.

Print Living Tip
Use a grill or barbecue to cook the skewers. Cook for 10-12 minutes on each side.

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Back to Basics fact sheet

For step-by-step pictures, and a full kebab fact sheet to print out for patients, go to www.redmeatandnutrition.com.au



Win!

Send us your favourite red meat kebab recipe to win a non-stick Baccarat 26cm griddle pan, rrp \$99.95 - perfect for kebabs! Enter at www.redmeatandnutrition.com.au before March 31 2009. All recipes will be posted on the website and the 10 most creative recipes will win!