



Hello and welcome to the September edition of Nutrition Matters, a quarterly newsletter produced by Melbourne Dietetic Centre for hospitals to support optimal nutrition practices.

The professional dietitians at Melbourne Dietetic Centre compile the dietetic insights offered in this newsletter. In this issue, we look at the role of nutrition in wound healing and what we can do to prevent it.

## Nutrition the key to wound healing and prevention in hospitalised elderly

The presence of wounds is a significant issue in our elderly population <sup>(1)</sup>. A study based in Victorian Residential Aged Care Facilities found that 25% of residents have wounds at any one time (excluding complex patients with diabetes) <sup>(2)</sup>. Other studies show that the level of residents with wounds can be as high as 43% <sup>(3)</sup>. The most common wounds found were skin tears, lower leg ulcers, pressure ulcers, dermatological conditions and surgical wounds.

In the hospital setting as many as 48% of patients will have one or more wounds during a hospital stay <sup>(4)</sup>. This is concerning, given that a large percentage of patients in hospital are elderly. Twenty to twenty-five per cent of these hospital wounds are considered preventable, being pressure sores and skin tears <sup>(4)</sup>. Elderly people who develop such wounds are consistently observed to have higher rates of mortality <sup>(5,6)</sup>.

The financial cost for pressure ulcers alone in Australia has been estimated to be up to \$286M a year in hospital bed days <sup>(7)</sup>, in addition to out of hospital costs such as dressings and wound care within nursing homes. Wounds also have a detrimental effect of quality of life of patients and carers <sup>(8)</sup>.

Nutrition plays a key role in optimising wound healing <sup>(9)</sup> and as such, involving a dietitian in the health care team is an essential part of wound management. Malnutrition, a condition where the body receives insufficient protein, energy and nutrients, has been determined as an independent risk factor for pressure ulcer development <sup>(5)</sup>. Malnutrition can be present in up to 40% of hospitalised elderly people <sup>(10)</sup>.

Wounds result in changes in energy, protein, fat, carbohydrate, vitamin and mineral metabolism. Thus the body requires an increased amount of nutrients to support the healing process and the associated increased metabolic demand. If nutrient delivery to a wound is impaired, healing will be prolonged or prevented <sup>(11)</sup>.

In order for wounds to heal, patients need to consume increased amounts of specific nutrients. Total energy requirements are increased <sup>(7,12)</sup>, and protein requirements can double <sup>(11)</sup> or sometimes triple <sup>(13)</sup>, depending on the severity and stage of the wound. Therefore, to enable optimal wound healing, some patients may still require supplementation, even if they are eating well, consuming all meals as well as snacks.



# Nutrition the key to wound healing and prevention in hospitalised elderly Cont...

Important nutrients in wound healing that may require special attention include vitamins A, C, E, the mineral zinc and arginine<sup>(7,11,14)</sup>. A dietitian or wound healing specialist is best placed to determine the level of supplementation required.

Nursing and care staff should be aware of the role of nutrition in wound healing. They need to ensure that diet is addressed as a factor when managing a patient's wounds. To ensure best practice wound care, a team approach is needed that includes a dietitian. The dietitian can assess nutritional status and decide whether supplementation is required. While some patients may simply need increased calories and protein, others may need more specific supplementation, an assessment that a dietitian is well trained to make. To minimise the burden of wounds, staff should monitor nutrition intake in all patients with, or at risk of wounds. Nutrition intervention can reduce the overall costs and individual stress of wound management through increased rates of healing<sup>(8,5)</sup> and decreased morbidity and mortality.

## Key Points

- High prevalence of wounds and malnutrition in hospitalised elderly.
- Wound healing is significantly delayed by the presence of malnutrition.
- Nutritional requirements to optimise wound healing are increased, meaning the standard hospital menu may not provide adequate nutrition.
- Specific nutrition supplements may improve wound healing.
- All patients with poor wound healing should be referred to a dietitian for nutrition assessment and management.

## References

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As the body needs more protein during wound healing the demand for normally nonessential amino acids, such as l-arginine, becomes essential. Dietary supplementation with l-arginine has been shown to enhance protein metabolism, helping to decrease muscle loss, and promote collagen synthesis, which helps to increase the strength of the wound!<sup>14</sup> Not only is l-arginine essential for the stimulation of the nitric oxide pathway but supplementation with l-arginine has been shown to enhance the immune system!<sup>14</sup>



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1. Arana V. Biomed Pharmacother 2004. 2. Wallace E. Br J Nurs 1994. 3. Desneves KJ. Clin Nutr 2005. 4. Langemo D. Adv Skin Wound Care 2006. Nestlé Healthcare Nutrition, 20-24 Howleys Road, Notting Hill VIC 3168, Australia. 1800 671 628 (toll free) [www.nestlenutrition.com.au](http://www.nestlenutrition.com.au) ©Reg. Trademark of Société des Produits Nestlé S.A. NHNCN2357

## Hospitals in the News

**"...up to 40 per cent of people in hospitals are malnourished, [despite provision of nutritious foods]" says Dr Merilyn Banks, Senior Dietitian, Royal Brisbane and Women's Hospital to ABC news<sup>(1)</sup>.**

A recent study by Dr Banks has shown that malnutrition due to pressure ulcers alone, costs the Queensland public health system \$13 million annually.

Melbourne Dietetic Centre, as Victoria's largest and leading group of private practice dietitians has many tools and strategies to help your hospital reduce and prevent malnutrition and poor wound healing. To enquire about our services call 9817 1544 or visit [www.dietitiancentre.com.au](http://www.dietitiancentre.com.au).

### Reference

1. ABC News (2009). Half of aged care residents 'too sick to eat'. Sat May 30, Accessed online: <http://www.abc.net.au/news/stories/2009/05/30/2585176.htm>

# MDC Diet Manual

## An invaluable resource for hospital food service and catering companies

Your tailored MDC Diet Manual provides a detailed description, background and **practical** instructions for meal and menu planning for special diets in hospitals. Each diet type includes a **sample meal plan** and **practical examples** for preparing modified diets.

Your comprehensive manual describes nutrition services, procedures for special diets, dietary guidelines for optimal health and the role of dietitian within your hospital setting.

Your MDC Diet Manual is produced according to the needs of your hospital. **We create a personalised manual** to include the specific diet types, recipes, supplements and menu advice relevant to your client group.

### Examples of special diets included in manual:

- Low protein / low potassium (renal)
- Full ward / normal diet
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- Diabetes
- Gluten free and coeliac disease
- High fibre
- Lactose free
- Vegetarian
- MAO / low tyramine
- Warfarin
- Allergies
- Yeast free
- Low / no added salt
- Enteral feeding (nasogastric, JEJ & PEG feeds)
- Amine & salicylate intolerance
- Irritable bowel syndrome
- Free fluids
- Bland / low residue
- Texture modification - soft, minced, pureed
- High energy, high protein diet and supplements
- Clear fluids

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## About MDC

Melbourne Dietetic Centre (MDC) is the largest private practice of professional dietitians in Victoria. MDC has provided professional and accredited Dietetic Services to hospitals, individuals, aged care facilities, government, community and corporate groups since 1982, and are leaders in the area of Nutrition and Dietetics.

Our team of 14 professional dietitians share a strong commitment to providing dietetic services that are of an exceptionally high professional standard. Our commitment to customers is to ensure Best Current Practice for patients, and to provide leadership for continuous quality improvement.

### What MDC Can Provide For Your Hospital

- Regular or on-call clinical services for patients
- Group services / education
- Nutrition screening for malnutrition risk
- Locum or leave cover for your regular dietitians
- Menu reviews
- Food service education
- Individual consultations for out-patients

MDC are proud to introduce some exciting additions to our comprehensive and holistic hospital nutrition services.

As part of internal ongoing continuous improvement, MDC have recently introduced the Customer Partner role as a free service to all MDC customers. MDC's Customer Partner, Miling Toyle, has been appointed to ensure we are constantly improving overall operations, maintaining excellent customer relationships, and ensuring outstanding customer satisfaction with all MDC services.

MDC has also recently welcomed Lynette Hogan, as a Business Development Officer. Looking after new sales, Lynette has embraced the opportunity to be able to offer our superior and cost-effective services to facilities in need of a higher standard of nutrition services.

## Meet The Team

### Miling Toyle – Customer Partner



As MDC's Customer Partner, Miling is responsible for maintaining customer relationships and ensuring that MDC continues to provide the excellent service on which our reputation rests.

Miling is also the Assistant Business Manager for MDC, which gives her an invaluable insight into matching customer needs with strategic business direction.

Miling began her career as a dietitian in the weight loss industry, working in nutrition program development and as a 1:1 consultant. Since then, Miling has worked as a dietitian in a number of aged care facilities across Melbourne. She is passionate about improving nutrition systems and processes through providing customised, professional services.

When not working on maintaining MDC's reputation as a premium dietetic services provider, Miling loves to keep fit by playing hockey, running and boxing, and enjoys travelling to wine regions, hosting dinner parties and taking advantage of Melbourne's world-class restaurant and dining scene.

### Lynette Hogan – Business Development Officer



Lynette is the new Business Development Officer for MDC. She has a background in science and has worked for many years in market research and business development in the food and pharmaceutical industries. She has long had an interest in nutrition, with personal experience of how significantly diet can influence health and well-being.

Lynette is passionate about meeting your needs as a customer, through exploring your requirements for services

in the area of nutrition and hydration. She strives for excellent business practice and quality outcomes for customers. Her aim is to exceed expectations!

In her spare time, Lynette loves walking and welcomes any opportunity to explore the great outdoors with her family. As a newcomer to the area, she is having a great time meeting new people and discovering all the good things that are on offer in the state of Victoria.

To discuss the use of MDC dietetic services at your hospital, please contact Lynette via the MDC main office on 9817 1544.



Melbourne Dietetic Centre

For further information visit  
[www.dietitiancentre.com.au](http://www.dietitiancentre.com.au)

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