

# Re-designing texture modified foods

**John Boland** explains how LHI Retirement Services in South Australia has improved the mealtime experience for residents with dysphagia by changing the way texture-modified food is presented

It is often said we eat with our eyes; the very first experience in the meal and dining process is the aromas emanating from the kitchen, together with the appearance of the meal.

For aged care residents with swallowing difficulties on a modified smooth pureed diet, the meal experience can therefore become a time of disinterest, unhappiness, and sometimes anger, when the meal that is presented to them does not, in fact, resemble the familiar sight of a meal at all.

Currently 75% of LHI's 214 residential care clients require some form of modified diet and 40% of those residents have a diagnosis of dementia.

In 2011 LHI's food production team decided that the traditional practice of providing 'vitamised' meals, now referred to as 'smooth puree', to residents with eating disorders and cognitive decline (usually using an ice-cream scoop to serve the various vitamised items) was no longer acceptable. A more sophisticated and practical production system was required, which would enable each item on the plate to be 're-formed' to resemble the appearance of the original ingredients.

The team believed it was unacceptable that the Australian Standards for Texture Modified Foods and Fluids (National Standard 2007) indicated 'smooth pureed' food could be presented as four coloured 'blobs' on a plate (with gravy!).

The general practice within hospitality services in the aged care industry had, until that point, been to serve food in this form to residents with dysphagia (an impairment in swallowing). The team therefore set out to change the guideline by improving the way we presented texture-modified meals so they didn't resemble blobs. We also felt it would provide a good opportunity to share this project with our colleagues in order to influence our industry to make positive changes to meal presentation for residents with dysphagia.

## The project objective

The project aimed to provide LHI catering staff with the opportunity to plan and implement practical solutions to improve the mealtime experience and nutritional intake of these residents by redesigning texture-modified food on a



**About 140 of LHI's residents who require a modified smooth puree diet now enjoy more attractive and appetising meals produced using the moulded texture-modified food process. Photo: LHI Retirement Services**

larger scale within a residential aged care setting.

We explored and researched ideas and possibilities for presenting the food in shapes that resembled the food items the resident was actually eating. With the involvement of a team from the University of South Australia, led by Dr Sandra Ullrich\*, we developed a production process using food moulds filled with texture B (minced and moist) or C (smooth pureed) food ingredients. The moulds shape the food into its original form. The moulded food is then snap-frozen until it's ready to be turned out on the plate, reheated in an oven and presented as a complete meal to residents.

The food moulds are 100% food-safe silicone, are dishwasher, oven and freezer safe and meet food safety regulations.

During our trial period we worked with people from a number of other aged care facilities and hospitals, including Robert Malekin, from the Nutrition and Dietetics Department, Osborne Park Hospital in WA, who produced a recipe and instruction manual called *Puree to Perfection* ([www.oph.health.wa.gov.au/Services/pdf/Puree2Perfection\\_OrderForm.pdf](http://www.oph.health.wa.gov.au/Services/pdf/Puree2Perfection_OrderForm.pdf)).

We also worked with the Mt Pleasant Hospital in the Adelaide Hills, SA.

Today companies like Textured Concept Foods in Melbourne, Victoria and Flavour Creations in Brisbane, Queensland are examples of two companies providing moulded food ingredients on a commercial basis.

## Outcomes

Approximately 140 of LHI's residents who require a modified smooth puree diet now enjoy more attractive and appetising meals produced using the moulded texture-modified food process.

After we introduced moulded meals, some residents who had shown little interest in food and were experiencing increasing weight loss at their monthly weight assessments gained weight, showed renewed interest in their food and enjoyed greater social interaction at mealtimes.

Subsequent surveys of residents' dining experience have confirmed that they are now eating larger quantities of food, expressing renewed interest and pleasure in the dining experience and some, who were on a liquid-only diet, are now eating plated meals again.

Residents, their family members and staff have all reported that there has been a 'lift' in both the consumption of meals, as well as a new enjoyment of this fundamental experience in life.

## Feedback from residents

A smooth pureed meal, produced using the new method to resemble actual roast lamb and vegetables, was presented to one resident who said: "Isn't it marvellous the way the chefs are able to get the meat so tender!". It was funny that a blended meal would be judged to be tender, but what this feedback confirmed was that the woman actually recognised the meal as roast lamb and could also comment on its tenderness.

Some of the most remarkable feedback we've had has come in actions, not words, from a resident with dementia who had always got angry when presented with her pureed meals and consistently made negative comments about the quality of the meals.

On 'day one' of our new system, when presented with the same meal, now moulded into the shape of the original food, she remained silent. We considered this to be a major achievement, but it got



Traditional 'ice-cream scoop' blobs of pureed meat, carrots, potato and peas (left) and the same meal produced using food moulds (right). Photos: LHI Retirement Services



A bowl of pureed peaches (left) and pureed peaches shaped and served with cream and raspberry coulis (right)



even better a few days later when the woman, who had required assistance to eat, reached down and, for the first time in many months, picked up her fork and began to eat her meal unassisted.

### Challenges

There were many challenges during the two-year project. Just to begin this complex and lengthy process required the many staff involved to be motivated and challenged to change from the traditional way of doing things, and try something that could make such a significant difference to the lives of our residents.

Without the team's passion to change the system, it would not have happened.

Getting everyone 'on board' took many months, but was finally achieved.

A major challenge was the system of 'regenerating' or 'reheating' the food. While regeneration is suitable for normal cooking processes, the new system required significant changes to the technology. The new-style, plated meals became a challenge, caused by the new consistencies of the food ingredients collapsing on reheating (eg carrots contain a lot of water and hence would collapse easily). After further research and trials, and eventually discovering the correct type and quantity of thickening agents required, we had recipes that suited the new process and were finally able to begin producing the moulded meals.

Another unforeseen issue was that due to the number of frozen moulded items the kitchen now had to produce,

significantly more storage and freezer space was required. This was eventually overcome by purchasing additional freezers and adapting additional areas of the production facility.

Staffing levels in the kitchen and the costs associated with the project also had to be considered and monitored closely.

### Future developments

LHI is continuing to refine the moulded food process within its food production facility. The organisation has also introduced frozen moulded meals for its clients in the community, ensuring that they too can enjoy food presented in a much more appetising way. LHI has employed an additional specialised cook to concentrate on this very important aspect of our catering services for older people within residential and home care.

### Networking and sharing

We continue to share our ideas with other aged care facilities through the Institute



An LHI catering staff member fills moulds with texture-modified ingredients. The food is then snap-frozen until it's ready to be turned out on to plates (right) and reheated for serving. Photos: LHI Retirement Services

of Hospitality in HealthCare Ltd (IHHC), the peak industry body for support service managers and supervisors in the industry.

The association's 36<sup>th</sup> annual international conference Hospitality in Healthcare – A Global Experience, in Adelaide from 16-18 October 2017, is also an opportunity for members to share projects and new initiatives. Details at: [www.ihhc.org.au](http://www.ihhc.org.au). ■

**For more information about the LHI meal presentation for modified meals project, contact John Boland, General Manager Hospitality Services, LHI Retirement Services, on (08) 8337 0488 or [jboland@lhi.org.au](mailto:jboland@lhi.org.au).**

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■ John Boland is General Manager Hospitality Services, LHI Retirement Services. LHI is based in Adelaide, South Australia, provides care for over 1000 people and employs over 550 staff.

\*Footnote: Dr Sandra Ullrich is a Lecturer in the School of Nursing and Midwifery at the University of South Australia. She has a background in hospitality and nursing. Her research focuses on the dining environment, older people's experiences of mealtimes within the residential aged and acute care context and the role of the nurse in nutritional care. Her research includes exploring the experience of older people with dysphagia as they transition from normal food to texture-modified food and investigating the indicators for finger food reciprocity in older people with dementia. Her published research includes a 2015 paper titled *Older People With Dysphagia: Transitioning To Texture-Modified Food*, published in the *British Journal of Nursing* 24(13) 686-692. Contact her at: [Sandra.Ullrich@unisa.edu.au](mailto:Sandra.Ullrich@unisa.edu.au).

