



Issue 22: November 2016: This e-bulletin is aimed at personnel in fisheries & aquaculture, at fish packers, processors, distributors, retailers, health professionals & finally consumers

Fish products for the elderly: - a golden opportunity

'The Golden Years' is the term often applied to people who have retired or are about to retire. The World Health Organisation estimates that the European region is ageing rapidly with 14% of people currently over 65 rising to about 25% by 2050. Feeding this ageing population is a golden opportunity for seafood processors and challenges them to create seafood products suitable for the elderly i.e. foods that are nutritious, suitably textured, flavoursome, convenient and affordable.

Good nutrition

Fish ticks most if not all the boxes associated with a healthy food in that it is nutritious, anti-inflammatory, is associated with a reduction of certain forms of cancer, helps cognitive function and brain development, and may help combat obesity and cardiovascular disease. Fish contains 16-18% of easily digestible high quality protein, and oily fish 10-20% oil which is rich in omega-3 polyunsaturated fatty acids, especially EPA and DHA. Fish contains only a small amount of carbohydrate but is a good source of a range of vitamins and minerals.

Suitable texture and flavour

Cooked fish is tender and assuming the bones have been removed is highly suitable for the elderly who may have chewing difficulties. Fish can be eaten as whole portions or as chopped flesh as in a fish casserole, pie, terrine or other product. Freezing can cause toughening of fish flesh but the chewiness of the cooked fish is still much less than that of beef. Making fish dishes flavoursome is very important for elderly consumers whose taste buds may have waned. Most white fish have a bland cooked flavour; however, flavours can be included via the sauce or batter coating or in the carbohydrate and vegetable components as in fish ready-meals. Oily fish may have a strong flavour when roasted, grilled or fried as has smoked fish, marinated fish and some other fish products.

Seafood products for the elderly

Frozen seafood products, due to their long shelf life, are particularly suitable for the elderly who may have limited opportunities for

shopping. 3D printing is an emerging technology which should have particular application in seafood products in terms of building attractive product shapes together with a soft cohesive texture. *Sous vide* cooking where fish is processed under vacuum in a plastic pouch at an intermediate temperature with or without vegetables. potatoes or rice gives a high quality product where aromas and nutrients are largely retained. A range of thin water-based zero fat flavoured sauces can be included, e.g. tomato with basil or pesto, Szechuan, Cajun, arrabbiata, toscana, rosemary, garlic and tikka. Marinating using dilute sugar or salt marinades also produces excellent fish products and the range of flavours above can be included in the marinade solutions. Creamy or high fat sauces such as Hollandaise are not recommended. Sauces can also be used to deliver other nutrients such as beta-glucan (a source of dietary fibre and helps reduce cholesterol) and resistant starch (contains 80% dietary fibre) and perhaps some mineral supplements if the product is aimed at the very elderly. Levels of salt in seafood products should be minimised. Both *sous vide* and marinated fish products can be readily frozen to give a long shelf life. Other seafood products suitable for the elderly include fish ready-meals, fish pies and casseroles, terrines and mousses. In all cases the fish content should be high as good nutrition is the bottom line. Obviously fish from the ice-counter or in pre-packs is also eminently suitable for seniors but requires cooking. If the current emphasis on personalised nutrition becomes commonplace then fish products will play a central role because of their nutritive value, tender texture and ease of digestion.

Convenient and affordable

Frozen seafood products are particularly convenient for seniors as the plastic packaging material is easily cut with a knife or scissors pre- or post-microwaving. The product can be quickly thawed, heated and/or cooked as necessary in a microwave oven and then consumed. Not so for canned fish products. Try pulling the tab on a sardine tin with arthritic fingers or opening a can with a tin opener. Seafood products for seniors must also be affordable as many old people living in their own home are on a tight budget. If institutionalised the same prevails as most nursing homes or equivalent are also run on a tight budget. In conclusion, seafood companies, Bord Iascaigh Mhara, Colleges of Catering and media chefs should address the issue of healthy seafood products for seniors as a priority. In addition, retailers should have large sections in-store with healthy foods for seniors and seafood products should command a significant amount of this shelf space.

Compiled by Professor Ronan Gormley of the UCD Institute of Food and Health, Belfield, Dublin 4. More information from ronan.gormley@ucd.ie

DISCLAIMER: While every care has been taken in ensuring the accuracy of the material presented, no liability as to its use or interpretation is accepted by the author or by UCD.

