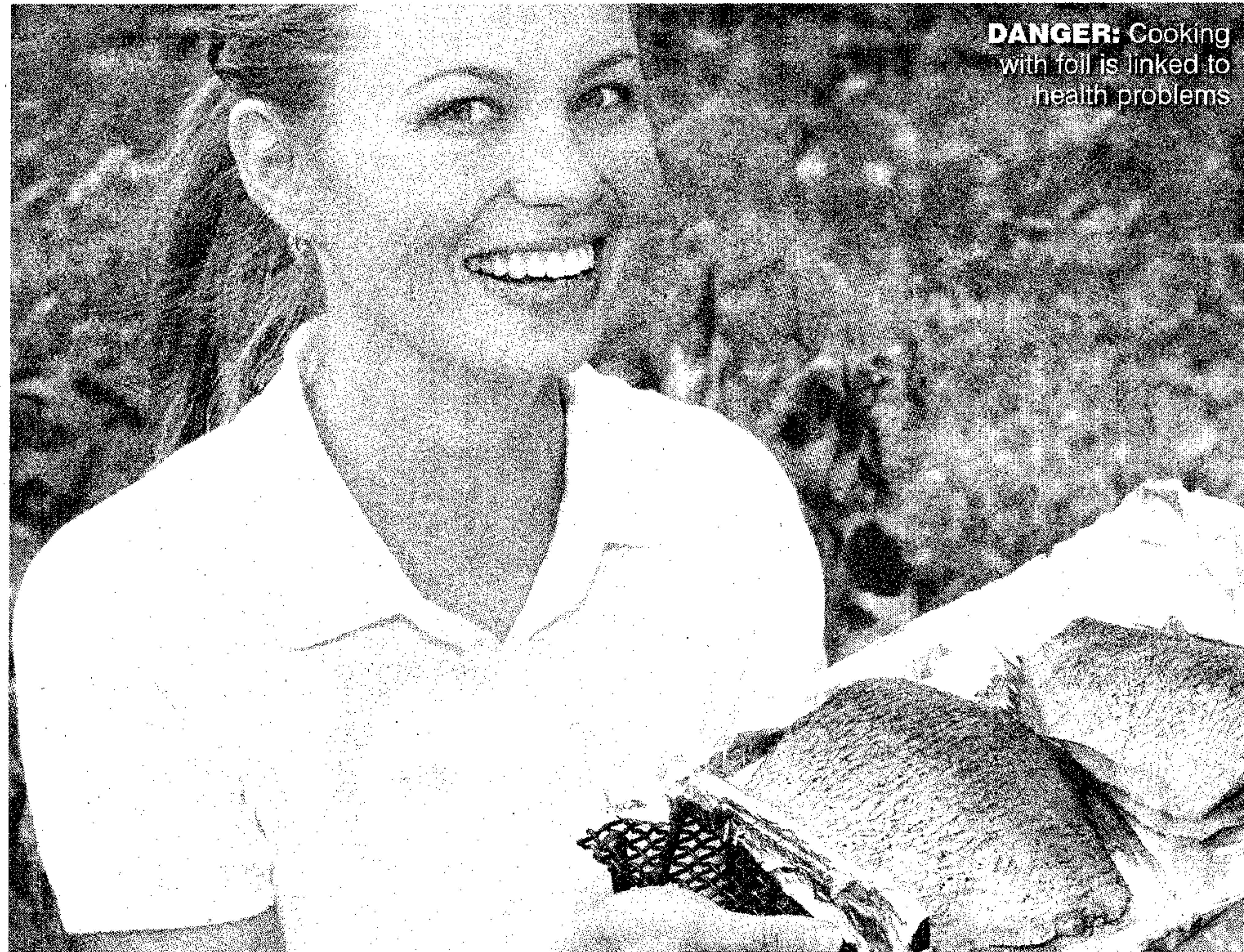


Cooking up concern

Research shows using aluminium foil to prepare food could increase risk of Alzheimer's, reports *Sean O'Driscoll*



DANGER: Cooking with foil is linked to health problems

Cooking with aluminium foil can have serious health risks, according to a new UAE study.

Scientists from the American University of Sharjah (AUS) and the Abu Dhabi Petroleum Institute warned that wrapping spicy foods in aluminium is particularly dangerous.

Researchers from the Chemical Engineering Department of AUS and the institute concluded that it is safe to wrap sandwiches and other cold foods in aluminium foil but said it should not be used for cooking.

In the experiment, the researchers bought aluminium foil from various shops in the UAE. They cooked enough minced meat for a family of three using six different flavourings, including tomato juice, citric acid, apple vinegar, salt and spices.

They found that the experiments "clearly indicate" the foil is absorbed into the food and "the amount of leaching was found to be high in acidic foods, and even higher when spices are used".

The experiment also found that higher oven or boiling temperatures add to the contamination but found no significant difference if the food is in contact with the shiny or dull side of the aluminium foil.

The research team published microscopic photographs of foil after it had been used for cooking food at 185C for 90 minutes.

The photos clearly show the damage to the foil caused by leaching of the aluminium into the food.

The researchers added that other international experiments found that

aluminium leached into bones and the thyroid. Significant quantities of aluminium were also found in the brains of people suffering from Alzheimer's.

Lead researcher Ghada Bassioni told 7DAYS that cooking with aluminium can be linked to Alzheimer's, anaemia and other illnesses.

Dr Thomas Kunt, chair of medicine at Abu Dhabi's newly opened Burjeel Hospital, has researched Alzheimer's disease and said that aluminium appears to accumulate in bones and in the central nervous system.

He said that scientists know from examples in Africa that cheap aluminium pots can leach and said that while evidence of harm is not conclusive, aluminium in cooking is very tightly controlled in the west.

He added that there was evidence that it can accumulate in diabetics and others who cannot filter toxins from the kidney. Autopsies on people who'd had Alzheimer's also found a build up of aluminium in their brain lesions, he said. sean@7days.ae

WHAT'S THE DAMAGE?

» Factors that will increase the amount of aluminium found in food?

Time spent in oven
Oven temperature
Acidity and salt content of food
Meat fat content of food (Aluminium is absorbed faster into fat)

» Increase in aluminium absorption depending on oven temperature:

Red meat: 89 to 378 per cent increase
Poultry: 76 to 215 per cent