The University Of Queensland
AUSTRALIA

Create change

UQ CHILD HEALTH RESEARCH CENTRE

Children's Nutrition Research

NUTRITION RESEARCH FOR HEALTHIER CHILDREN

The Children's Nutrition Research Centre (CNRC) is a research group within the UQ Child Health Research Centre.

Renowned for its studies in growth and development, body composition, and energy metabolism, the CNRC is focused on making children healthier through good nutrition.

DID YOU KNOW?

More than a quarter of Australian children are overweight or obese and at risk of chronic diseases such as type 2 diabetes and heart disease.

More than 60 per cent of Australian children are predicted to be overweight or obese by 2040.

Australia has the highest rates of food allergy reported in the Western world, affecting 1 in 20 Australian children and 2 in 100 adults.

Since 1990, there has been a five-fold increase in hospitalisations for severe reactions due to food allergy.

New guidelines for infant feeding and allergy prevention now recommend that all infants should be given allergenic solid foods such as peanut butter, cooked egg, dairy and wheat products in their first year of life.

www.child-health-research.centre.uq.edu.au

Research improving kids' lives

THE IMPORTANCE OF NUTRITION RESEARCH

Good nutrition is a building block for a healthy life. By understanding more about the nutritional health of children and their parents, we can prevent allergies and chronic illnesses such as type 2 diabetes, obesity and cardiovascular disease.

We can do this by ensuring a child has the right energy, proteins, essential fats, vitamins and minerals to optimise their growth and development.

For children with diseases and disabilities such as cancer and cerebral palsy, good nutrition can shorten recovery time, prevent recurrence of illness, and boost their bone strength and ability to be active and grow.

OPTIMISING NUTRITIONAL HEALTH

Our researchers work closely with doctors, nurses, dietitians and other health professionals to seek answers to questions like:

- How does a mother's health at conception and during pregnancy impact on a child's likelihood of developing obesity or chronic disease later in life?
- How do early infant feeding practises shape future health, in particular the development of allergies and chronic diseases?
- How can we promote healthy body composition and growth if a child is sick or injured?
- How does a child's gut bacteria influence their likelihood of becoming obese or developing allergies?
- Do probiotics play a role in preventing or minimising the effects of allergic conditions like asthma or eczema?

BODY COMPOSITION LAB

Our body composition laboratory is state-of-the-art and allows us to measure body composition and energy expenditure in children with a variety of clinical conditions. This helps us to monitor their growth, nutritional status, rehabilitation progress, and energy requirements to optimise treatment outcomes.

HOW OUR RESEARCH IS HELPING CHILDREN

Better nourishment for kids with cancer

CNRC researchers have developed a screening tool for children with cancer to assess whether they are malnourished. The tool was developed after our studies showed that many children become malnourished during cancer treatment and that the long term health outcomes are worse for these children, even if they survive the cancer. The tool is now in use in hospitals across the globe.

Nutrition and cystic fibrosis (CF)

Nutrition plays a very important role in the treatment and management of children with CF. As these children now live longer, many long-term health problems associated with their inability to absorb key vitamins and nutrients are emerging. Our research has shown that children with CF tend to have an altered body composition and this may prevent them from developing and maintaining a strong skeleton. This information is now being used to trial children with low-impact vibration therapy to improve their bone health.

Helping parents to make good choices

Our research is helping parents to understand whether toddler formulas are beneficial for their children. With ongoing debate about whether to give young children toddler formula (that contains added nutrients and probiotics) or cow's milk, this study and others, are giving parents and health professionals the information they need to make good choices about nutrition.

Guiding parents to optimise their child's health

As a member of the Australia and New Zealand Early Life Nutrition Working Party, Professor Peter Davies co-authored a booklet for new parents titled "Nurturing future health through nutrition". This booklet summarises the panel's key recommendations as clear nutritional guidelines that are easy for parents to put into practice. The helpful nutritional guide is now distributed in both Australia and New Zealand to approximately 80 per cent of new parents.

WE NEED YOUR SUPPORT

Our Children's Nutrition Research Centre needs your support to:

- fund vital research projects,
- cover running costs of our body composition laboratory, and
- attract expert researchers and students to undertake nutrition research for healthier children.

To donate, contact:

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CNRC DIRECTOR

Professsor Peter Davies
Child nutrition and growth specialist

"At the CNRC, an emphasis of our work is to understand what parents know about infant feeding, introducing solids, and the family food environment. This is important because early nutrition is known to have a long-term effect on later health outcomes including the likelihood of a child developing allergies, or being overweight or obese. Whether we are working to prevent disease and disability, or to support children with conditions such as cerebral palsy, cystic fibrsois or cancer, ultimately we hope our research will lead to healthier children who live long and happy lives."

MORE INFORMATION

For further information on child health research at UQ:
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