Being overweight as a child and adolescent can lead to poor postures and possible back pain, Western Australian researchers have found.

The body mass index (BMI) of 1,373 children, aged three to 14 years, was compared with specific standing postures measured at age 14, by Curtin University of Technology researchers.

Results of the Raine study over that period found a clear relationship between BMI and posture.

Four main posture groups were defined, neutral, flat, sway and hyperlordotic by angular measurements of the pelvis and spine of teenagers. “We found that teenagers with higher BMI were more likely to stand with non-neutral postures, placing more strain on the spine and increasing the risk of back pain,” Curtin University’s school of physiotherapy senior lecturer Dr Anne Smith said.

Dr Smith said the link between BMI and spinal posture was of concern. “It suggests increasing load on the spine over the growth period may change the structure of the spine.”

The research showed that BMI was consistent from early life to adolescence. “We found that in terms of BMI for most teenagers, where you are at three is where you are at 14,” Dr Smith said.

Obesity is an important factor for bone and joint health and development as well as a risk factor for other health problems, the researchers concluded. “Our findings emphasise the importance of preventing obesity as early in life as possible,” Dr Smith said.

The next stage of the study will analyse data from teenagers at 17 years to identify whether there is a link between posture, obesity and back pain.

No more “fake it” – it’s time to fashion stake it!

BY KATRINA LANE-KREBS

“Monkeys monkeys everywhere, including sitting on the chair!”

Christian is monkey mad... six months ago it was army men...before that zoo animals. Tiffany's favourite toy is a mouse. Felicity loves BLING!”

Katrina Lane-Krebs, from CQUniversity’s School of Nursing and Midwifery is passionate about working with children with special and complex care needs. She turns complex medical equipment into fun, creative aids that help children deal with their illness.

Children may be required to use assistive devices such as Ankle Foot Orthoses (AFO), walking sticks or frames, feeding pumps and urinary collection bags. Children have a natural attraction for the bright, bold and expressive so why not make assistive devices with this in mind – let’s add some BLING, says Katrina. AFOs featuring Spiderman or army-like prints or a child’s favourite animal become far more appealing than the attempt to fake it through poorly matched surgical ‘skin colour’, drab green and non-descript white.

Interest arises within the school room and playground when a feeding tube is encased within an elephant's trunk or a giraffe's neck. Tubing for urinary collection bags become less medical when placed within a toy snake or the collection bag housed within a decorated pouch. Cochlear amplifiers and hearing aids become a fashion accessory when decorated with ogre ears. “A child often finds it easier to talk with their peers about their ‘Spiderman leg’ or ‘ogre ears’ rather than the ‘prosthetic leg’ or the ‘cochlear amplifier’,” says Katrina.

Working with children with complex needs presents unique challenges in facilitating adherence with the use of medical equipment. Katrina has been associated with the haemophilia support service for more than 20 years and cerebral palsy support and rehabilitation services for the past six years. Additional medical components become an extension of the child and need to become as much a part of the child’s world as possible, reflecting the uniqueness of every child’s experiences. It is logical, if the child is comfortable with their assistive devices that they are likely to use them. Kids are fashion conscious too. Less medical, “make it more ME!” says Felicity.

A child is more likely to wear their AFO if it is “trendy”, says Katrina.

Fashion through creative thinking can be used to eliminate negative therapeutic motivation. Remove the medical image and replace it with motivation, says Katrina. “Offer children choices by small degrees where they can exert degrees of self determination in a way that is age and skill appropriate. The latent benefit is enhancement of the child’s self concept, self worth and subsequently self esteem.”

At a professional level, Katrina has worked as a special needs advisor for the disability service equipment and toy library and has held advisory roles for community care services. She completed her Masters research examining the experience of parents of children with special needs.