Communication and Marketing Department
Isebe loThungelwano neNtengiso
Kommunikasie en Bemarkingsdepartement

Private Bag X3, Rondebosch 7701, South Africa
Welgelegen House, Chapel Road Extension, Rosebank, Cape Town
Tel: +27 (0) 21 650 5427/5428/5674 Fax: +27 (0) 21 650 5628

www.uct.ac.za

30 April 2018

UCT engineers have designed a device to improve the quality of life for asthma sufferers

Every year in South Africa asthma claims the lives of 58 500 people, and there are 3.9 million people who live with this disease. About 10% of adults and 20% of children suffer from asthma, and the country has the fourth highest asthma-related death toll in the world. Most deaths due to asthma can be prevented with proper treatment.

With World Asthma Day taking place on 1 May, it is important to raise awareness around how this widespread condition is often under-diagnosed, not treated properly and has the possibility to restrict one's activities for a lifetime.

The problem lies in the fact that many of the elderly and children who suffer from asthma are unable to activate their asthma pumps due to the force required to release the medicine. Those that are designed for easy use are often not affordable.

Local biomedical engineers at the Medical Devices Laboratory of the University of Cape Town (UCT) have designed a device which hopes to alleviate this problem. The Easy Squeezy (a novel device) is an attachment sleeve that fits over a standard inhaler which reduces the force required to activate the inhaler by approximately two thirds, making it manageable for most children and elderly asthma sufferers.

Associate Professor Sudesh Sivarasu, Associate Professor Michael Levin, Giancarlo Beukes and Gokul Nair are part of UCT's Medical Devices Group, which develops affordable medical technologies. Research Contracts and Innovation partnered with the innovation team at a very early stage and has facilitated the intellectual property protection and commercialisation of the technology. The aim of this venture is to change the lives of those who cannot afford expensive medical technologies as they believe health care is a core human right.

The annual morbidity rate in South Africa is about 1.5% among sufferers, and the Easy Squeezy has the potential to reduce this rate and enhance the quality of life of asthma sufferers by lessening the burden to individuals and families.

Head of the Division of Asthma and Allergy at UCT, Associate Prof Levin is all too familiar with this challenge. "We spend a lot of our time counselling patients about the importance

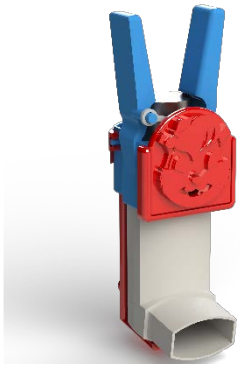
of using their pumps every day with the best possible technique. And often we place blame on them when they don't use them every day. But what if they are trying, but just can't manage to get it right?" he asks.

Watching his patients, including his own daughter, having difficulty using their pumps inspired the thought: what if we could make a way of pressing the pumps easier?

According to Associate Prof Sivarasu, the Easy Squeezy is designed for asthma sufferers from as young as five years to those over 70 years of age – they have different needs but the device suits them both. "We want to destigmatise the use of asthma pumps for children and have designed the sleeve to be similar to a Lego toy collectable. It's somewhat of a 'build-your-own' asthma pump," he says.

The device ensures that both children and the elderly are able to use their pumps without assistance, indicates how many doses are left in a pump, and helps to alleviate the stigma many children experience when using the pump because their favourite figurines can be attached to it.

Note to editors



The Easy Squeezy device. Please credit: Giancarlo Beukes

Please credit: Saberi Marais

ENDS

Issued by: UCT Communication and Marketing Department

Aamirah Sonday
Media Liaison and Monitoring Officer
Communication and Marketing Department
University of Cape Town
Rondebosch
Tel: (021) 650 5427
Fax: (021) 650 3780
Cell: (076) 947 6071

Email: aamirah.sonday@uct.ac.za
Website: www.uct.ac.za