

STRENGTHEN A WEAK SHOULDER



PHOTO: Ngee ANN POLYTECHNIC

Ms Jennifer Liaw demonstrates with a volunteer how a shoulder rehabilitation device is used.

Stroke patients and those who have had surgery usually require rehabilitation to regain their strength and mobility.

A shoulder rehabilitation device will soon allow such patients to perform shoulder exercises in multiple angles and directions, with adjustable levels of resistance.

The price is yet to be confirmed, but the device is slated to hit the market next month.

Ms Jennifer Liaw, 41, a senior principal physiotherapist at the Singapore General Hospital (SGH), who came up with the idea three years ago, says: "Currently, there is no device in the market that helps patients to engage in exercises for movement in all the planes of the shoulder joint.

"This device is better than current exercise techniques used by patients with very weak shoulder muscles."

The device was developed by four Ngee Ann Polytechnic engineering students as their final-year project, alongside a team from SGH.

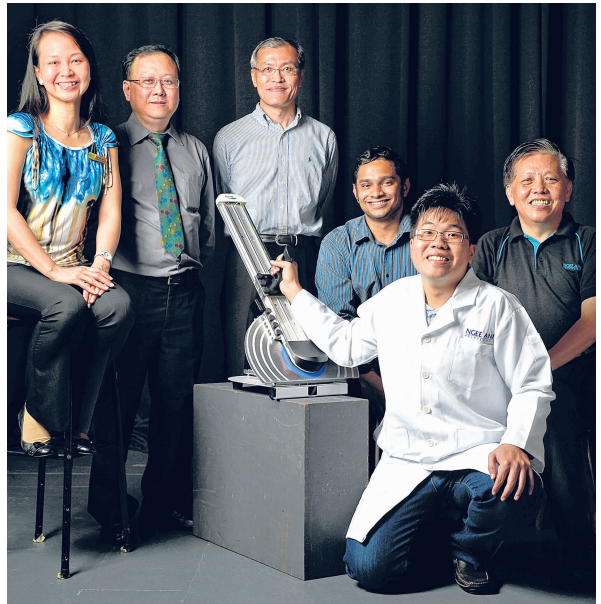
Says Mr Lim Ding Yan, 22, one of the members of the Ngee Ann team who is now studying at Nanyang Technological University: "We think the device is useful because as Singapore's population ages, more people will be prone to injuries or suffering from stroke."

Called SRD, short for "shoulder rehab device", the 7kg invention is made mostly of aluminium and stainless steel and lets patients push or pull a handle along an inclined surface.

It also contains magnets which let users adjust the level of resistance.

The device is being developed for sale by Nextan, a home-grown technology company.

Says Mr Lim: "With so many people working on



ST PHOTO: MARK CHEONG

The team includes (from left) Ms Jennifer Liaw, Mr Sean Tan, managing director of local technology company Nextan, Mr Erik Lee, head of business development at Nextan, Mr Ranawakage Lasitha Dananjaya, R&D engineer at Nextan, Mr Lim Ding Yan and Dr Tan Lam Wing, senior lecturer at Ngee Ann Polytechnic's mechanical engineering division.

the device, it is now much lighter and more efficient compared with the earlier prototypes.

"It goes to show that coming up with an invention is a joint effort – everyone plays a part to make it better."