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Building a better mask

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A designed-in-Toronto face mask, born out of the 2003 SARS crisis, is catching the attention of governments and health-care institutions around the world as fears of a swine flu pandemic continue to soar.

ANDREW WALLACE/TORONTO STAR

FaceSeal vice-president Alan Perry models a FitSeal mask.

Toronto-based FaceSeal Technologies is already working with officials in Mexico, and is fielding requests for its next-generation face masks from Israel, Germany, Korea and the Philippines.

Hospitals, paramedic personnel and other front-line health services in Canada and the U.S. are also interested in the mask.

"We are trying to rev up production as quickly as possible because we are getting so many demands," said Dr. Gabor Lantos, a co-inventor of the face mask and director of personal protective equipment development at FaceSeal Technologies. The form-fitting face mask, technically called a respirator and dubbed FitSeal, adheres to the face without the need for elastic bands and completely seals off the nose and mouth. Lantos said FitSeal is designed to better protect front-line workers from airborne infectious disease, including influenza.

The face masks currently used for protection against infectious disease are held in place with elastic bands and use metallic clips to form a seal around the nose, said Lantos.

These N95 respirators can be easily dislodged, which allows air underneath the mask, he said.

"Anybody who has worn one will tell you they are difficult to breathe in, hard to wear for any length of time and it's hard to communicate with one on," said Lantos.

Another problem with the current masks is the wearer must find the right brand, model and size to fit properly and create a protective seal, he said.