

## A COVID-19 vaccine delivery method guide:

# MICRONEEDLE ARRAY (MNA)



] 300-400 microns

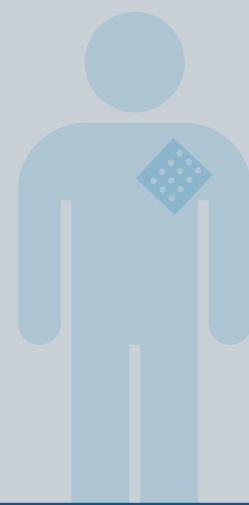


] 300 microns

MNAs are tiny patches of micro-needles, about the thickness of a fingernail, that can deliver vaccines and other medicines.

MNAs are minimally invasive. They may be less painful than vaccines delivered by regular sized needles. They feel like velcro on the skin.

MNAs can be easily self-administered, without professional training. Patches are typically kept on for 1-2 days.



MNA technology development began in the 1990's. Research and clinical trials are underway for insulin delivery to diabetic patients and other vaccines.



MNAs may mean more people get vaccinated:

- minimally invasive
- self-application
- micro-needle technology for those who fear needles