

## AT A GLANCE

# Myocarditis and Pericarditis Following COVID-19 mRNA Vaccines

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## Background

In May 2021, international reports of myocarditis (inflammation of the heart muscle) and pericarditis (inflammation of the lining around the heart) following vaccination with COVID-19 mRNA vaccines emerged, including from [Israel](#) and the [United States](#).<sup>1-2</sup> Available information indicates that these cases have occurred: mainly in adolescents and young adults, more often in males than females, more commonly after the second dose, and typically within several days after vaccination. Most cases appear to be mild and respond well to conservative treatment (e.g. non-steroidal anti-inflammatory drugs) and rest.

All countries using mRNA vaccines in young adults and adolescents are continuing to recommend their use, but are following the emerging evidence on this topic very closely as further information is collected. Recent guidance for those who have previously experienced myocarditis or pericarditis following mRNA COVID-19 vaccines is described below.

## Situation in Canada and Ontario

As part of ongoing COVID-19 vaccine safety efforts, the Public Health Agency of Canada (PHAC) and Health Canada are closely monitoring reports of myocarditis/pericarditis following COVID-19 vaccination in passive and active Canadian safety surveillance systems.

There have been a small number of reports of pericarditis or myocarditis following vaccination with a COVID-19 mRNA vaccine in Canada. Weekly updates on national data can be found on PHAC's [website](#).<sup>3</sup>

In Ontario, health care professionals should submit any reports of myocarditis and pericarditis following COVID-19 vaccines to their [local public health unit](#) using the [Ontario AEFI reporting form](#).<sup>4-5</sup> Public Health Ontario (PHO) is monitoring this issue as part of enhanced COVID-19 vaccine safety surveillance and produces a weekly [summary](#) of all COVID-19 AEFIs in Ontario, including myocarditis/pericarditis.<sup>6</sup>

Clinical considerations, including recommendations for clinicians, are available from the [Hospital for Sick Children](#)<sup>7</sup> and the [Centres for Disease Control and Prevention \(CDC\)](#).<sup>8</sup> The National Advisory Committee on Immunization (NACI) recommends that as a precautionary measure, individuals who experienced myocarditis/pericarditis after a first dose of an mRNA COVID-19 vaccine should wait to receive a second dose until more information is available.<sup>9</sup>

PHO will continue to monitor for reported events of myocarditis/pericarditis following COVID-19 vaccination in partnership with the Ontario Ministry of Health and federal/provincial/territorial vaccine safety networks, and will provide timely updates as more information becomes available.

## References

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