

Research Breakthroughs

Life-saving advances made possible by you.



1964

Dr. William Mustard develops surgical procedure to correct "blue baby syndrome," a previously lethal heart defect.

1968

One of the first heart transplant surgeries in Canada is performed.



1976

Prostaglandin E2 gives surgeons much needed time to repair defects in the hearts of newborns.

1980

Dr. Adolfo de Bold discovers atrial natriuretic factor (ANF), the hormone that controls high blood pressure, sparking a revolution in blood pressure research.

1987

A new surgical technique helps treat irregular heartbeats.



1990

First genetic link to premature heart disease is discovered.



1999

Clot-busting drug tPA used to treat ischemic stroke – one of the biggest life-saving breakthroughs.

2000

ACE inhibitors are found to significantly reduce the risk of heart attacks and strokes.

2004

INTERHEART study, led by Dr. Salim Yusuf, discovers the existence of nine modifiable risk factors that account for over 90% of heart attacks worldwide.

2006

Researchers identify important gender differences in the development of high blood pressure.



2014

Researchers discover the cause of increased calcium in the heart, which can lead to an irregular heartbeat and sudden death.

2016

Dr. Louise Pilote identifies gender – distinct from biological sex – as a unique risk factor for the recurrence of major cardiac events.

2018

Pioneering analysis quantifies the economic toll of stroke and heart disease on families, through reduced earnings and more.



1954

Dr. Wilfred Bigelow performs first successful open heart surgery in Canada, using a technique developed through a Heart & Stroke research grant.



1965

Diagnosing heart disease becomes easier thanks to ECG telemetry, which allows doctors to monitor patients' hearts remotely while they go about daily activities.



1976

Dr. Henry Barnett conducts first clinical trial using Aspirin to prevent strokes.

1983

Dr. Robert Côté perfects a clinical tool that measures neurological deficits following an acute stroke. This Canadian Neurological Scale is now used all over the world.



1987

Researchers pioneer the use of the clot-busting drug tPA for heart attacks.

1997

Human genome mapping reveals more than 84,000 DNA sequences related to heart disease and stroke.



2000

Dr. Lori West discovers that, unlike adults, newborns are able to accept hearts from incompatible donors.

2003

Canadian Stroke Strategy, a joint initiative with the Canadian Stroke Network, revolutionizes stroke management with a new integrated approach to prevention, treatment and rehabilitation.

2005

The gene responsible for heart arrhythmias is found.



2009

World's first in-utero surgery to correct congenital heart defects is performed in Canada.

2015

ESCAPE trial shows that treating major strokes by removing blood clots through blood vessels cuts deaths by 50% and reduces disability in survivors.



2016

The stroke strategy established in 2003 pays off as research proves integrated systems of stroke care reduce stroke deaths by 20%.



2019

Discovery of a molecule linked to 1 in 5 cases of heart failure creates potential for preventing this debilitating condition.