

E-counselling shows dramatic results in lowering blood pressure

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E-counselling can significantly lower blood pressure, improve lifestyle and enhance quality of life, says Heart and Stroke Foundation researcher Dr. Robert Nolan.

"E-counselling has the potential to strengthen the effects of medical treatment for [high blood pressure](#)," Dr. Nolan told the Canadian Cardiovascular Congress, which is co-hosted by the Heart and Stroke Foundation and the Canadian Cardiovascular Society. "We found that it led to an almost double decrease in the [blood pressure levels](#) of [participants](#) compared to those who did not receive the e-counselling."

The study investigated whether e-counselling contributes to improvement in [blood pressure control](#) over a period of at least one year and whether it helps to maintain improved [quality of life](#) as well as survival among persons with high blood pressure.

Dr. Nolan and his team from the University Health Network, University of Western Ontario and the Ontario Public Health Unit in Grey Bruce evaluated Heart&Stroke Health eSupport, a Heart and Stroke Foundation personalized action plan and e-mail support program developed to help people control their blood pressure and maintain a healthy lifestyle.

Six million Canadians have high blood pressure – known as the silent killer due to its lack of symptoms. It is the number one risk factor for stroke and a major risk factor for heart disease.

The researchers found that e-counselling motivates people to stay on track with diet and exercise plans, which leads to lower blood pressure.

The moods of people coping with high blood pressure also improved while they were participating in the e-counselling program. Depression is known to have an adverse effect on patients with high blood pressure, says Dr. Nolan. It causes them to lose interest in eating healthy foods and exercising – two lifestyle choices that can significantly improve their health. "Knowing this, we wanted to look at the effect of e-counselling in terms of improving lifestyle behaviours, as well as decreasing blood pressure."

The study evaluated 387 people ranging in age from 45 to 74, over a four-month period. All had been diagnosed with high blood pressure and 72 per cent were taking one or more blood pressure medications.

One group was sent a standard e-newsletter from the Heart and Stroke Foundation, containing heart health information and general tips to manage their health. The second group received eight emails over four months that provided both educational information as well as motivational messages.

Prior to receiving the emails, the second group filled out surveys identifying what they wanted to change about their lifestyle, such as quitting smoking, improving their diet, or being more physically active. The emails then addressed their individual concerns and included tailored suggestions and personal encouragement to help them achieve their goals.

Participants in the study who received these emails recorded approximately double the amount of decrease in blood pressure, compared to subjects who received just the newsletter, Dr. Nolan reported.

"We found the e-counselling was associated with an improvement in both exercise and diet behaviour. The motivational component was therapeutic," said Dr. Nolan. "E-tools to promote healthy lifestyles are becoming an established success – it's the way of the future."

He notes that study participants ranged in age from 45 to 70. "This was a powerful tool to provide a connection to some of the older participants who were once isolated," says Dr. Nolan. "Seventy years ago someone would be standing in a doctor's office – flash forward to now and people's risks are being reduced in their own homes through the power of e-support."

He says e-counselling may prove to be a cost-efficient way to extend the reach of healthcare programs to people in need, without overtaxing the resources of our healthcare system. He noted that this issue will likely become a research priority if long-term health benefits of e-counselling are established.

"If you know and control your blood pressure, you can cut your risk of stroke by up to 40 per cent and heart attack by up to 25 per cent," says Heart and Stroke Foundation spokesperson Dr. Beth Abramson.

"Lifestyle changes such as following a healthy, low sodium diet, being physically active, being smoke-free, achieving and maintaining a healthy weight, and managing stress all reduce your risk."

She says this study suggests that e-counselling, paired with monitoring by a physician and the proper medication, is a promising trio for people dealing with high blood pressure.

With such encouraging results, Dr. Nolan and his team are currently exploring the benefits of e-counselling further with a larger and longer-term clinical trial.

"Our next goal is to study whether e-counselling may also help with adherence to medications for [blood pressure](#) control," says Dr. Nolan. "Ongoing support from an e-counselling program may be an effective way to provide education and encouragement to help patients maintain the benefit of their [medical treatment](#)."

The Foundation's Heart&Stroke Health eSupport™ (heartandstroke.ca/healthsupport) is a free, tailored email follow-up service which sends periodic emails to provide users with information and tips tailored to their current situation, helping them to move closer to making heart-healthy lifestyle changes.

Developed by experts, this interactive program creates personalized action plans for users by guiding them through a personalized risk assessment and identifying their personal risk of heart disease and stroke, and provides tips, advice and support to help reduce their risks.

Provided by Heart and Stroke Foundation of Canada

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