



**COME
TOGETHER,
CANADA.**

**Stronger connections,
better mental health.**



THE SCIENCE BEHIND SOCIAL CONNECTION

When we bond with other people and feel a sense of connection, our brain's reward system gets activated. Getting a smile or receiving a verbal sign of approval activates our sense of well-being and motivation. This happens because affirming social interactions release dopamine and oxytocin, our body's natural opioids, which increases our motivation to bond.ⁱ

LONELINESS, STRESS, AND THE BODY

Loneliness, social isolation, and lack of social support produce a stress response in our brains and bodies which activates – and dysregulates – the hypothalamic-pituitary-adrenocortical axis, more simply known as the HPA axis.

When the HPA axis (or stress system) becomes dysregulated, it can affect our:

- Mood and emotional regulation
- Thinking, focus, and memory
- Energy levels
- Immune function
- Metabolism

Loneliness linked to long-term stress increases the risk of developing chronic health conditions.ⁱⁱ

HEALTH RISKS LINKED TO LONELINESS

The stress response that is activated from the experience of loneliness and prolonged feelings of social isolation has been associated with:

- Depressive symptoms
- Self-harm and suicide, particularly when the person is also experiencing depressive symptoms and/or a substance use health problemⁱⁱⁱ
- Heightened inflammation
- High blood pressure
- Heart disease (29% increased risk)
- Stroke (32% increased risk)^{iv}
- Faster aging and physiological decline
- Early death (associated with above-mentioned health problems)

SOCIAL CONNECTION: A PROTECTIVE FACTOR FOR REDUCING STRESS AND PROMOTING WELL-BEING

Research shows that certain factors help buffer against loneliness and the negative impacts it can have on our health. Some of these factors are individual – such as our personality traits – and others are shaped by our social environment and circumstances.

They include:

- Having a secure attachment style (being caring, vulnerable and open, but practicing good boundaries and healthy conflict resolution)
- Having strong parent-child attachments and fostering a healthy home environment
- Being married or partnered in a relationship that is supportive and trusting
- Access to healthy school and workplace environments
- Access to good social, economic, and health supports, including adequate income, meaningful employment, housing, healthcare and education opportunities
- Participating in community groups, such as:
 - Sports or recreation teams
 - Cultural or faith communities
 - Advocacy, volunteer, or social groups



ⁱ Delgado, Mauricio, Dominic S. Fareri and Luke J. Chang, “Characterizing the mechanisms of social connection,” *Neuron* 111.24 (2023): 3911-3925; Feldman, Ruth, “Oxytocin and social affiliation in humans,” *Hormones and Behavior* 61 (2012): 380-391.

ⁱⁱ Ring, Melinda. “An integrative approach to HPA Axis dysfunction: From recognition to recovery,” *The American Journal of Medicine* 138.10 (2025): 1451-1463.

ⁱⁱⁱ Association Between Loneliness and Suicidal Behaviour: A Scoping Review. *Turkish Journal of Psychiatry* 34.2 (2023): 125-32.

^{iv} Valtorta, Nicole., Mona Kanaan, Simon Gilbody, Sara Ronzi and Barbara Hanratty, “Loneliness and social isolation as risk factors for coronary heart disease and stroke: systematic review and meta-analysis of longitudinal observational studies,” *Heart* 102.13 (2016).