



## Ronald Melzack, PhD

Dr. Ronald Melzack revolutionized the study and treatment of pain. His pioneering theories in pain mechanisms and pain control spanning over a half a century have had a major impact on every field of medicine that deals with patients who suffer pain. A leader and visionary, Dr. Melzack made four major contributions in the field of pain. With the support of Dr. Joseph Stratford, Dr. Melzack co-founded the first pain clinic in Canada at McGill where he served as Research Director from 1974 to 2000. The clinic became known as the McGill-Montreal General Hospital Pain Centre and has grown to be one of the best organized centres for pain treatment in the world.

In 1965, he developed the gate-control theory of pain in collaboration with neurophysiologist Dr. Patrick Wall. The theory produced an explosive growth of research and resulted in experimental and clinical psychology becoming an integral part of pain research and therapy. In 1968, Dr. Melzack published an extension of the gate-control theory, proposing that pain is a subjective, multidimensional experience subserved by parallel neural networks.

During his postdoctoral years, Dr. Melzack recorded over a hundred words to describe pain, and with the help of a statistician he was able to obtain quantitative measures of each descriptor. This led to his development in 1975 of the McGill Pain Questionnaire, now the most widely used method for measuring pain in clinical research worldwide. Dr. Melzack's fascination with phantom limb pain led to a publication in 1989 of the "neuromatrix theory of pain". He proposed that we are born with a genetically determined neural network that generates the perception of the body, the sense of self, and can also generate chronic pain, even when no limbs are present.

Dr. Melzack was appointed an Officer of the Order of Canada (1995) and received the Prix du Québec for research in pure and applied science (1994). Among numerous awards, he was elected a Fellow of the Royal Society of Canada (1982), holds two Canadian honorary degrees, and was the first recipient of the E.P. Taylor Chair in Pain Studies at McGill (1986).