"May the fire be in our thoughts, making them true, good and just."—(40,000-year-old Aboriginal prayer.)

Prayer is the only ritual to have transcended all eras and cultures to still be practised by billions. Even the most non-spiritual people have, on occasion, turned to prayer at some time in their lives in the hope of achieving some outcome, resolving some pain or finding some hope. In fact, a study referred to in the book *Healing, Intention and Energy Medicine* found that nearly 90 per cent of patients with serious illness turn to prayer for these very reasons.

Thousands of varieties of prayer exist, including adoration, confession, meditation, vows, mantras and rituals by primitive societies such as rain-making songs and dancing. For many modern people, the experience of time alone to reflect, think, connect with a higher power and meditate is as important as eating, sleeping and breathing.

What does prayer mean to people across various religions and cultures? For some it is the deepest, most fervent, ecstatic state they can experience, impossible to put into words. For others, it's a state of being, a oneness with the creator.

For Anglican Archbishop Jensen of Sydney, prayer is about being "in relationship" with God. Archbishop Jensen says, "You couldn't have a relationship with another person without talking to them. It also changes us because, in any central relationship in our lives, if it is healthy and ongoing, we will gradually change." Jensen believes prayer is a simple act in which you can just express yourself as to a friend.

Buddhist psychologist John Barter has practised Buddhism of the Theravada Forest tradition for 30 years. For 10 of those years he lived as a Buddhist monk in Thailand and Europe. He describes how praying is a "freeing" experience, making him feel "wonderful, at peace, connected to everything" and able to transcend his ego. He says in Buddhism prayer refers to chanting and meditative practices that allow one to connect to the "divine beingness inside of oneself" rather than to a divine entity outside of oneself.

It can also involve the dedication of the goodness of one's life on a particular day to another person's wellbeing and happiness. Barter sees prayer as healthy biochemically and psychologically, and believes it raises our level of spiritual consciousness. He says prayer is learning to be present in the moment and being in harmony with what is rather than living life as a reaction.

Faith is the foundation of prayer across virtually all traditions, hence the question of whether something real actually occurs during prayer. Some profound exchange of

divine intervention is rarely sought or even of interest to those who pray. This is expressed by Jesus in Christianity. When the apostle "Doubting Thomas" refused to believe in the Resurrection unless he actually touched the wounds of the risen Christ (John 20: 25–29), Jesus replied, "Blest are they that have not seen and yet have believed."

This longing for faith is also expressed by Zaleski and Zaleski in their work on the history of prayer. "We love to hear stories of illness overcome with prayer. It strengthens our hope that with God all things are truly possible, that prayer is something more than the pursuit of unseen, unfelt, untasted ideals and that, in prayer, as William James put it, 'something is transacting' and work is really being done."

Can prayer work?

Despite prayer having a foundation of faith, the question of whether prayer can produce a real effect in the world has been of growing interest to some scientists. Of the randomised controlled studies that have been done on the effectiveness of prayer, a notable number have shown that prayer actually produces a real effect in the world over and above the effect of

the effects of prayer in the Judeo-Christian tradition in a coronary care unit (CCU) population. Over 10 months, 393 patients admitted to the CCU were randomly assigned to a treatment group that would receive distant prayers or a control group that would receive no prayers. Three to seven people prayed daily for the rapid recovery, and prevention of complications or death, for a single patient in the treatment group. The end result was that statistically significantly fewer patients in the prayer group required ventilation or antibiotics, had cardiopulmonary arrests, developed pneumonia or required diuretics.

Another study was conducted in 1988 at California Pacific Medical Center's Complementary Medicine Research Institute. This study looked at the effect of distant prayer from various religious traditions on 40 volunteers who had advanced AIDS. Healing was sent for an hour each day, six days a week, over a 10-day period by 40 healers from various parts of the United States. The healers were from various religious backgrounds including Christianity, Buddhism, Judaism, Native American and other Shamanic traditions, and modern healing schools. The participants or the doctors treating them did not know who: would receive the healing and who wouldn't. All participants had ongoing medical care during the study. After six months, AIDS patients who had been sent distant prayers significantly fewer AIDS-related illnesses, less severity of illness, less frequent

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placebo. In studies of prayer, a placebo effect refers to change occurring in the recipients of prayer just because they knew they were being prayed for and therefore expected to feel better and this belief is what resulted in the improvements. Several studies, however, have found that recipients of prayer who did not know they were being prayed for have improved significantly more than a control group who were not being prayed for under the same conditions.

Researcher John Astin found 13 randomised controlled studies of prayer that he considered to meet scientifically high standards of research. Six of these 13 randomised controlled trials using 2328 patients showed significant positive effects on at least one health outcome. Examples of this research are as follows.

One of the most cited studies in prayer literature was conducted by the physician Randolph Byrd in 1988. Byrd looked at visits to the doctor, fewer hospitalisations and an improvement in mood. All improvements were statistically significant.

How might prayer work?

If prayer has a real effect in the world, how might this happen? One place to start is in exploring the influence of human intention. There are many studies of intention that relate to research on prayer. They suggest that a positive intention to heal or influence has a significant effect and therefore a heartfelt, loving intention may be very important in producing significant effects from prayer.

Both distant healing and hands-on healing are also areas with a growing body of literature to support their effectiveness. Various metanalyses have summarised research in areas of healing, including distant healing, Reiki and therapeutic touch. Although results are inconclusive, many randomised controlled studies show positive results.

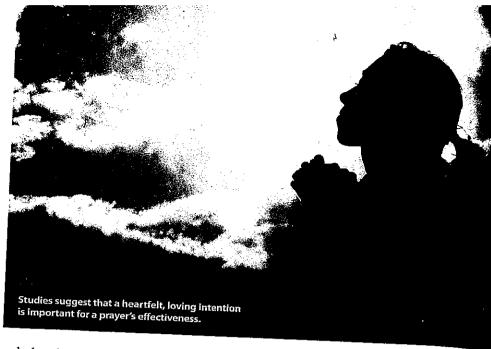
One of the most comprehensive overviews is by psychiatrist Daniel Benor, who provides a comprehensive volume of research reviewing 191 controlled experiments of human healing on human and non-human living systems. In this review, healing refers to variations on a healer having their hands on or near the subject with a healing intention, or sending a healing intention across a distance. This sometimes involves prayer. Fifty-two of these studies were considered to be of an excellent standard of research. Of these 52 studies, 75 per cent showed highly statistically significant results, strongly suggesting the positive healing effects of intention.

Some studies even show human intention can influence non-living systems. Radin and Nelson summarised 40 years of experiments using random event generators (REGs). An REG refers to any device that behaves in a random way, such as flipping a coin. Electronic versions of REGs were created and studies were conducted to measure whether the intention of an individual or group could influence these devices in a systematic way so as to produce a statistically significant deviation from a chance result. Ninety-one different authors published 516 experiments in 216 articles. The overall magnitude of effect was small but highly statistically significant and multiple independent investigators have replicated these effects.

If we accept that intention plays a role in the positive effects of prayer, then how might it do so? One possible mechanism of influence could be electromagnetic energy that is transmitted during cellular processes across cells, and is also transmitted by humans, particularly by our hearts and brains.

Some have argued that electromagnetic and other forms of energy play a much larger role in our biology than we think; in fact, electromagnetic frequencies are 100 times more efficient at transferring information in biological systems than are chemical signals from hormones and neurotransmitters. Furthermore, the healing effects electromagnetic fields in the light spectrum have been shown in numerous clinical studies. These fields promote healing of skin, nerve, bone, tendon, cartilage and ligament. This occurs as the electromagnetic light energy is absorbed by endogenous chromophores and used to synthesise adenosine triphosphate (ATP), ultimately contributing to repair and regeneration of cells and homeostasis.

Other researchers have observed that when two people are touching or at a conversational distance, the electromagnetic signals from one person's heart (their ECG) can influence he electromagnetic signals of the other terson's brain (their EEG). They found that his influence increases when one person enerates a "coherent" or sincere loving ositive intention. If electromagnetic energy an promote healing of skin and boneetc,



and the electromagnetic signals from one person can influence another, this could be a mechanism through which intention between people could exert a healing influence.

However, even if this were so, it does not explain positive healing effects of intention at a distance, as is present in distant healing and prayer studies. If electromagnetism were the key influence, its effects should diminish as the distance becomes greater. Other possible sources of influence are thought to be scalar waves and biophotons, which are not affected by electromagnetic light and could be operating in a manner consistent with quantum theory. In this theory, distance is irrelevant because quantum particles are able to exist in two places at the same time.

What makes prayer more effective?

Whatever the source of their influence, is there anything we can do to make our prayers more effective? In addition to some of the research above suggesting a coherent loving intention to be important, Lynn McTaggart, in her book, The Intention Experiment, reviews an exhaustive amount of research relating to intention. She suggests that for intention to be successful the sender must learn to quiet their mind and focus, such as during a state of meditation. She says that at least 25 studies show that EEG synchronisation occurs between the four regions of the brain during meditation, and other studies show meditation creates more coherent biophoton emissions and generally aids healing.

McTaggart also says a person needs to tune into the object of their intention by experiencing positive feelings towards the receiver. She says people who pray need to visualise and mentally rehearse their intention and they need to believe that their intention will produce an effect. She also reviews evidence strongly suggesting that time and place also have influence.

McTaggart also cites research suggesting

intention to be more effective when the sender and receiver know each other and have a close relationship. In one study, healers were isolated from the receivers with whom they shared a close relationship. The receivers were placed in a magnetic resonance imaging (MRI) scanner. The healers sent healing at random two-minute intervals using their traditional belief practices.

During these times, there was significant brain activation, mainly in the frontal lobes of all receivers during the times the healing energy was being sent to them. However, when the same procedure was attempted with people the healers didn't know, it had no effect on the receivers' brain activity. This suggests some connection between receiver and sender may be important.

Dr Gary Schwartz is a professor of medicine, neurology, psychology, surgery and psychiatry at the University of Arizona. He summarises the varying explanations for the healing effects of phenomena such as prayer as follows:

- There are no observed effects and no need for an explanation.
- † The observed effects are the result of spontaneous remission.
- The observed effects are due to expectancy or placebo.
- The observed effects are the result of electromagnetic fields.
- The observed effects are the result of quantum fields.
- The observed effects are the result of advanced physical phenomena.
- The observed effects require new physics.
- The observed effects involved spiritual mechanisms.

Whatever one's view of prayer, it was Albert Einstein who said, "The important thing is not to stop questioning." Einstein also said, "Our separation from each other is an optical illusion of consciousness." So, whether you are a person of faith or not, there's certainly evidence that it's worth your while to quiet your mind, open your heart and pray.