

## CHAPTER THIRTY THREE

### Laughing <sup>1</sup>

*O Allah (The Exalted) bless our master Muhammad (may Allah bless him and grant him peace) in every star in the sky from the day You created the world to the Day of Resurrection and every day a thousand times.*

There is a special name for the physiological study of laughter. It is called Gelotology. Scientists have discovered that within four-tenths of a second of seeing something humorous, an electrical wave moved through the cerebral cortex<sup>2</sup> of the brain. If the wave took a negative charge, there was laughter. Many areas of the brain are involved in making us laugh. The emotional, the intellectual, and the sensory processing parts of our brain all play a role in stimulating the motor sections of our brain to physically make us laugh

#### **Therapeutic Benefits of Laughter**

Doctor Lee Berk and fellow researcher Doctor Stanley Tan of Loma Linda University in California have been studying the effects of laughter on the immune system. To date their published studies have shown that laughing lowers blood pressure, reduces stress hormones, increases muscle flexion, and boosts immune function by raising levels of infection-fighting T-cells, disease-fighting proteins called Gamma-interferon and B-cells, which produce disease-destroying antibodies. Laughter also triggers the release of endorphins, the body's natural painkillers, and produces a general sense of well-being. Following is a summary of his research, taken from an interview published in the Humour and Health Journal.<sup>1</sup>

#### **Laughter Activates the Immune System**

In Berk's study, the physiological response produced by belly laughter was opposite of what is seen in classical stress, supporting the conclusion that joyful laughter is a eustress state -- a state that produces healthy or positive emotions. Research results indicate that, after exposure to humour, there is a general increase in activity within the immune system, including:

- 1) An increase in the number and activity level of natural killer cells that attack viral infected cells and some types of cancer and tumour cells.
- 2) An increase in activated T cells (T lymphocytes). There are many T cells that await activation. Laughter appears to tell the immune system to "turn it up a notch."
- 3) An increase in the antibody IgA (immunoglobulin A), which fights upper respiratory tract insults and infections.

#### **Laughter Decreases "Stress" Hormones**

The results of the study also supported research indicating a general decrease in stress hormones that constrict blood vessels and suppress immune activity. These were shown to decrease in the study group exposed to humour. For example, levels of epinephrine<sup>3</sup> were lower in the group both in anticipation of humour and after exposure to humour. Epinephrine levels remained down throughout the experiment. In addition, dopamine<sup>4</sup> levels were also decreased. Dopamine is associated with elevated blood pressure. Laughing is aerobic, providing a workout for the diaphragm and increasing the body's ability to use oxygen. Laughter brings in positive emotions that can enhance – not replace -- conventional treatments. Hence it is another tool available to help fight the disease. Experts believe that, when used as an adjunct to conventional care, laughter can reduce pain and aid the healing process. For one thing, laughter offers a powerful distraction from pain.

In a study published in the Journal of Holistic Nursing, patients were told one-liners after surgery and before painful medication was administered. Those exposed to humour perceived less pain when compared to patients who didn't get a dose of humour as part of their therapy. Perhaps, the biggest benefit of laughter is that it is free and has no known negative side effects. So, here is a summary of how humour contributes to physical health.

---

<sup>1</sup> See Volume One, Chapter Forty Six for this Sunnah

<sup>2</sup> The intricately folded out layer of the cerebrum, making up some 40% of the brain by weight and composed of an estimated 15,000 million neurones.

<sup>3</sup> An important hormone secreted by the medulla of the adrenal gland.

<sup>4</sup> Is used as a drug to increase the strength of contraction of the heart in heart failure, shock, severe and trauma.

**Muscle Relaxation** - Belly laugh results in muscle relaxation. While you laugh, the muscles that do not participate in the belly laugh, relaxes. After you finish laughing those muscles involved in the laughter start to relax. So, the action takes place in two stages.

**Reduction of Stress Hormones** - Laughter reduces at least four of neuroendocrine<sup>5</sup> hormones associated with stress response. These are epinephrine<sup>6</sup>, **cortisol<sup>7</sup>, dopac, and growth hormone.**

**Immune System Enhancement** - Clinical studies have shown that humour strengthens the immune system.

**Pain Reduction** - Humour allows a person to “forget” about pains such as aches, arthritis, etc.

**Cardiac Exercise** - A belly laugh is equivalent to “an internal jogging.” Laughter can provide good cardiac conditioning especially for those who are unable to perform physical exercises.

**Blood Pressure** - Women seem to benefit more than men in preventing hypertension<sup>8</sup>.

**Respiration** - Frequent belly laughter empties your lungs of more air than it takes in resulting in a cleansing effect - similar to deep breathing. Especially beneficial for patient's who are suffering from emphysema<sup>9</sup> and other respiratory ailments.

A genuine smile increases the production of serotonin<sup>10</sup>, the happy hormone. It's a bonding agent. Smiling builds bridges to other people around us. It keeps us from remaining aloof and separate from one another. Babies as young as three weeks old even recognize smiling as a bonding behaviour. What a workout! One smile uses more than 16 muscles.

Researchers have found that laughter is used in making and strengthening our connections with each other. People that are more dominant, like a boss or head of a family, for example, use more humour than others around them. Laughter becomes a way to show power over the emotional climate of the group. When someone is embarrassed or threatened, laughter can defuse the situation by deflecting the anger and accepting humiliation. Laughter relieves stress, stimulates healing, exercises certain parts of the body, and helps in human bonding. That is why crying and laughing are beneficial to us both emotionally and physically.

'Abd-Allah Ibn Haarith (may Allah be pleased with him) reports, “I did not see anyone who smiled more than the Messenger of Allah (may Allah bless him and grant him peace).”<sup>i</sup> ii 'Abd-Allah Ibn Haarith (may Allah be pleased with him) relates, “The laugh of The Messenger of Allah (may Allah bless him and grant him peace) was but a smile.”<sup>iii</sup>

Jabir Ibn 'Abd-Allah (may Allah be pleased with him) says, “After I accepted Islam, the Messenger of Allah (may Allah bless him and grant him peace) never prohibited me from attending his assemblies. Whenever he saw me he smiled.”<sup>iv</sup>

---

<sup>i</sup> September/October 1996

<sup>ii</sup> Shamail-e-Tirmidhi

<sup>iii</sup> Shamail-e-Tirmidhi

<sup>iv</sup> Shamail-e-Tirmidhi

---

<sup>5</sup> The system of dual control of certain activities of the body y means of the nerves and circulating hormones.

<sup>6</sup> An important hormone secreted by the medulla of the adrenal gland.

<sup>7</sup> A Steroid hormone released by the human adrenal cortex.

<sup>8</sup> High blood pressure.

<sup>9</sup> Air in the tissues.

<sup>10</sup> A compound widely distributed in the tissues, particularly in the blood platelets, intestinal walls, and central nerves system.