

The Startle Reflex

There are innumerable physiological reflexes encoded in the DNA that are essential for maintaining the integrity and safety of human beings. There are also other specific reflex patterns that respond to specific threats or lacks that could prove harmful. Most reflexes occur within the body beyond conscious awareness, such as control of heart rate, temperature and digestion. But some do reach conscious awareness, such as when a limb is speedily withdrawn in response to sharp pain.

There are a whole range of complex patterns of reflex behaviour in all animal species, that relate to courtship, sexual union, 'nest building' and rearing progeny safely. In humans, an elaboration of this reflex complex is the physiological, neuro-chemical control system in the midbrain is defined as '**the maternal-infant bonding process**', and these, among all the other things, initiate and reinforce human sociability, and make humans unique. This occurs by establishing 'needs' for approval of and acceptance by everyone, so that people so that it is 'reflex' for people to be friendly and altruistic. If this does not happen and people feel rejected, there is a reflex 'anxiety' response. (further information at www.felicitystockwell.com)

The Startle Reflex is a fundamental protective one, and is a response to a sensation of falling or an unexpected loud sound or touch, which causes an immediate jerk of the body, an extension of the arms with gripped hands and a drawing up of the knees, and a panic feeling does reach consciousness causes distress. It is present at birth where, called the Moro Reflex, it is tested by letting the supported baby's head drop a few inches, and the full response indicates that neural physiology is fully functional. The startle reflex remains from the evolutionary past, when it would have helped the infant cling to its mother while she carried it around all day, but although it is redundant for modern mankind it can still be alerted throughout life. Most people can recall the nasty shock when there is not another expected step at the bottom of the stairs, and we know people will 'jump' when we go 'Boo'.

The first hours and days of the babies contact with the mother must be close and calm, so that all the physiological processes adjust to life outside the womb, and also for the essential initiation of the socialising 'bonding' process. Calm confidence in the mother is also important so that she does not inadvertently elicit the startle reflex in the baby. Babies are moved a lot, and being lowered into the bath or the cot too quickly or jerkily can trigger the startle reflex. The response, which may include crying, can be missed and for the most part there is no problem. However it is noticed that some babies startle in their sleep and this could be due to

a dreaming recall of some startle experience, and apart from waking the baby no harm is done. However if the baby is not robust or its vital physiology not fully organised, the reflex release of adrenalin could be sufficient to have adverse effects and stop the heart.

In studies of cot death it might be relevant to observe the mothers tension or anxiety as she cares for her baby, rather than checking the babies sleeping place or position.

Thus, it is very important that those concerned with mother and baby care are aware of the startle reflex and knowledgeable about helping mothers, and others, to prevent it happening.

The full startle response of the newborn becomes modified over time, but the extreme immediate 'fear' experience remains. In ordinary circumstances, conscious understanding that there is no danger soon restores equilibrium, but in the young and the old, and sometimes the sick or incapacitated this is often not the case, and the unpleasant fear response can be prolonged and have adverse effects.

It is very important that nurses and carers are aware of this, because it is very easy to trigger the startle reflex inadvertently during many caring activities.

Many years ago, walking along a corridor I saw a nurse with a patient in a wheelchair, chatting to a friend. When they saw me they jumped apart and the wheelchair was immediately pushed forward, and the patient exhibited the full startle response, with arms out and knees up. By the time I was alongside she had 'recovered', but the memory would have become imprinted at an unconscious level and wheelchairs, and nurses could trigger fear thereafter.

It only takes a small 'fall' to elicit the startle reflex. Lowering a patient onto a chair when the nurse can see the seat, but let go for the last few inches is a common cause of startle, and when using hoists it is difficult to avoid startling, and no amount of reassurance can overcome the reflex response if the person feels they are falling.

One incident of startle will fade fairly quickly if the person is well and contented, but if the person is already anxious or if they are 'startled' more frequently, they will be driven to the 'fight or flight' panic situation and become 'difficult'.

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