

Angelman Syndrome

What is Angelman Syndrome?

In Australia, Angelman Syndrome (AS) affects approximately 1 in 15,000 births and affects both males and females. It is a rare genetic disorder caused by a missing or faulty UBE3A gene on chromosome 15 that primarily affects the nervous system.

Common characteristics of Angelman syndrome:

- Severe developmental delays;
- Intellectual disability and short attention span;
- Impaired movement and balance;
- Frequent seizures, and sleep difficulties (ataxia);
- Lack of speech or severe speech impairment;
- Most children have a small head (microcephaly)
- Hyperactivity is very common but it tends to lessen with maturity.

Despite these profound challenges, individuals with AS are known for their happy, excitable dispositions and infectious laughter.

While there is no cure for Angelman Syndrome, a near-normal life expectancy can be expected. Management focuses heavily on therapies, symptom control, and daily support.

Benefits from working with RDA

- **Concentration-** Programs include educational concepts, learning numbers, colours, shapes, patterns and sequencing. Memory and concentration can be improved through playing games.
- **Speech and language difficulties-** The excitement of riding encourages riders to speak and communicate about their activities.
- **Poor Confidence and Self-Esteem-** Confidence is gained in mastering new skills normally performed by able-bodied people. The ability to control an animal much larger and stronger than oneself is a great confidence builder.
- **Poor Self-discipline and emotional control-** The riders learn self-control through the structure of lessons.
- **Weakness, paralysis or lack of muscle control--** Muscles are strengthened by increase use involved in riding. Even though riding is exercise, it is perceived as enjoyment, therefore the rider has increased tolerance and motivation to lengthen the period of exercise.
- **Poor Balance-** As the horse moves, the rider is constantly thrown off balance, requiring the rider's muscles to contract and relax in an attempt to re-balance. This exercising is similar to physiotherapy, reaching the deep muscles, but making the therapy more enjoyable. The three-dimensional rhythmic movement of the horse is similar to the motion of walking, teaching rhythmical patterns to the muscles of the legs and trunk. Placing the client in different positions on

the horse works different sets of muscles. Stopping and starting the horse, changing the speed and direction increases the benefits.

- **Poor Fitness-** Trotting and cantering increase both respiration and circulation. Riding is a physical activity and over time riders increase their stamina and endurance.
- **Difficulty with Fine Motor Coordination-** Riding a horse requires a great deal of coordination in order to get the desired response from the horse. Since the horse provides instant feedback to every action from the rider, it is easy for the rider to know when they have given a correct cue. Repetition of patterned movements required in controlling a horse quickens reflexes and aids in motor planning.