

Avant® Laser Therapy – Information Sheet

Supporting Regulation, Brain Function, Healing & Functional Development

At Children's Therapy Services, we use evidence-informed, functional neurology approaches to support children's neurological, sensory, emotional, and physical development. The Avant® Laser system is one of these tools, providing a non-invasive way to support cellular function, regulation, and healing using multiple wavelengths of light.

What Is Avant® Laser Therapy?

Avant® Laser Therapy is a form of low level light therapy (photobiomodulation) that uses different wavelengths of light to interact with the body at a cellular level. In our clinic, we utilise a range of wavelengths including red, infrared, green, and violet light, each selected based on the child's individual needs and therapy goals.

These wavelengths support the body by stimulating cellular activity, increasing energy production (ATP), and improving communication between cells and the nervous system.

It is used to:

- Support cellular energy and healing (ATP production)
- Enhance brain function and communication
- Support nervous system regulation
- Reduce inflammation and support recovery
- Improve overall physiological function

Understanding the Different Wavelengths

Red & Infrared Light

- Penetrate deeper into tissue
- Support muscle, nerve, and joint function
- Enhance healing and reduce inflammation
- Support brain and nervous system function

Green & Violet Light

- Work more superficially within the nervous system
- Support regulation and calming
- Influence sensory processing and brain activity

- Often used for brain-based and emotional regulation protocols

Why We Use the Avant® Laser in Our Clinic

Children who experience challenges with regulation, sensory processing, or neurological development may benefit from support at a cellular and nervous system level. The Avant® system allows us to tailor interventions using different wavelengths to target specific systems in the body.

The Avant® laser may be used to support:

- Emotional regulation and calming
- Gut function and digestion
- Vagus nerve activation
- Brain function and hemisphere balance
- Recovery from stress or injury

Understanding How the Avant® Laser Supports Therapy

Cellular Energy & Healing

- Stimulates mitochondria to increase ATP production
- Enhances cell repair and communication
- Supports tissue healing and recovery

Nervous System Regulation

- Supports calming and regulation of the nervous system
- Reduces stress responses
- Improves resilience and regulation

Functional Neurology Applications

- Supports brain activation and organisation
- Enhances brain-body communication
- Supports hemisphere balance and integration

How the Avant® Laser Is Used

The Avant® Laser is used during therapy sessions as part of an individualised programme. Specific wavelengths and protocols are selected based on each child's needs.

Examples of how the laser may be used in sessions:

- Gut protocols to support digestion and regulation
- Vagus nerve stimulation for calming and regulation

- Brain-based protocols (frontal cortex, cerebellum)
- Motor strip activation for movement and coordination
- Emotional regulation and sensory support

What Are the Benefits?

- ✓ Improved regulation and calming
- ✓ Enhanced healing and recovery
- ✓ Better gut and vagal function
- ✓ Improved attention and engagement
- ✓ Support for brain development and function

Who May Benefit?

Avant® Laser Therapy may support children who experience:

- Sensory processing challenges
- Gut or digestive difficulties
- Attention and focus difficulties
- Emotional regulation challenges
- Neurological or developmental differences

Is Avant® Laser Therapy Safe?

Yes. Avant® Laser Therapy is non-invasive and does not produce heat or discomfort. It is safe when used under professional guidance and tailored to the individual.

Our Approach at Children's Therapy Services

The Avant® Laser is integrated into a whole-child, individualised therapy plan which may include functional neurology, sensory integration, and regulation-based therapies. All interventions are aligned with meaningful, functional outcomes for each child.