BUCK & TODD OPTOMETRIST

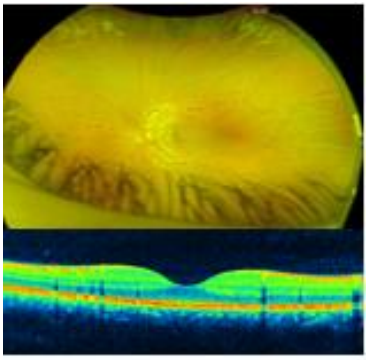
Children's Vision

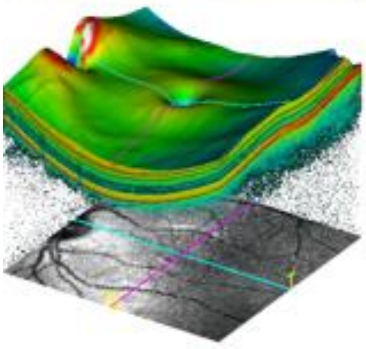
For best performance with both reading and sports children need good vision. Along with normal visual acuity they need accurate eye-movement and focussing control. They need to sustain or change binocular vergence and focus without effort whilst stable or moving and maintain this all day. For reading a child also needs lateral awareness, cognitive recognition of symbols, and awareness of place and periphery. An innate awareness of context develops only once these foundation skills are available and with repeated reading. Comprehension and understanding occur when visual, auditory and memory matching are synchronised.

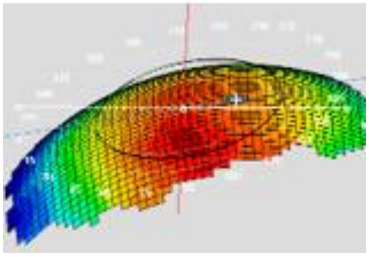
When a teacher, doctor, or therapist recommends an assessment by a behavioural optometrist, they are seeking a deeper understanding of vision beyond just reading letters on an eye chart. As optometrists experienced in children's vision, particularly in developmental and behavioural aspects, we aim to evaluate and improve your child's visual efficiency and visual information processing.

The Three Key Areas of Vision

1) Eye Health and Visual Acuity.







Your eye health always comes first. Although eye diseases are less common in children, they can occur at any age and must be ruled out during a vision and visual function assessment.

We use digital imaging to gain 200-degree retinal images, cross-sectional views of the macula and 3D scans of the posterior pole. We combine this with topographical (shape) imaging of the cornea, biomicroscopy evaluation of the anterior eye and intra-ocular pressure measurement to fully evaluate eye health.

Visual acuity is usually dependent upon refractive errors such as myopia, hypermetropia, and astigmatism. These conditions can be treated with glasses, contact lenses, or orthokeratology (overnight vision correction) when necessary. Myopia is often progressive and can be slowed through myopia control devices.

2) Visual Efficiency- Stress free comfortable clear vision.

Trouble focussing to and from the board, finding distance vision is worse in the afternoon, frequent rubbing of eyes, frequent blinking and variation in working distance for close work are indicators of poor focusing skills. Headaches and sore eyes with reading or avoidance of reading often indicates eye co-ordination difficulties.

Imbalanced eye coordination and focussing are common problems in children that hinder learning. Focusing problems can develop before and after children learn to read, significantly affecting their ability to read, comprehend, concentrate, and sustain reading. Refractive correction with glasses or contact lenses improves focussing but co-ordination skills need development through vision therapy.

Reading requires children to be able to maintain clarity and visual axis alignment whilst scanning across a page and maintaining awareness of where to scan next and how to find the next word and next line. Improving eye control reduces stress on the visual system and allows children to concentrate better on learning and enjoy reading. Early treatment of focusing and eye coordination problems also helps reduce the risk of developing other visual disorders, such as myopia, amblyopia, and strabismus.

3) Visual Information Processing- Understanding/Acting on what we see.

If your child is experiencing learning challenges further refinement in visual processing may still be needed. Effective information processing involves visual sequencing, spatial organization, reading eye movements, visual-motor integration, and visual thinking. Vision therapy helps develop and integrate these skills, making your child more visually prepared to learn.

Visual processing difficulties are often linked to language, auditory, and sensory/motor integration issues. Our test battery identifies these difficulties. Many of these are best rectified through the assistance of appropriately trained complimentary allied health professionals. We provide information and referrals to occupational therapists, speech therapists, chiropractors, audiologists, paediatricians, physiotherapists as well as reports for tutors, teachers and any other profession who may assist in the journey to assist your child's learning.