

Neurons that fire together, wire together. Neurons out of sync, fail to link.

### ි BACKGROUND TO CELLFIELD

Cellfield is a computer based intervention for reading and language difficulties. It is delivered by reading and language professionals.

The Cellfield intervention employs the research of neuroscience from the past thirty years and brain scanning research of recent years.

Phonological decoding skills are given prominence. A unique feature of this intervention is the stimulation of transient vision, attention and working memory. An objective of this 'multi-causal' approach is to provide the missing elements that help 'bind' the orthographics (the symbols) to the phonological (sound structure) of our language.

An essential element of the Cellfield intervention is to assess aspects of binocular eye movement control that are relevant to reading.

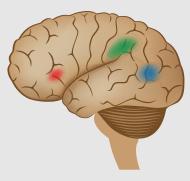
A comprehensive optical examination is carried out by a registered optometrist who is familiar with the measurements required. Orthoptic measures are taken during the Cellfield intervention if shortcomings are discovered.

The Cellfield intervention employs the research of neuroscience from the past thirty years and brain scanning research of recent years.

### "Neurons that fire together, wire together"

Donald Hebb, Canadian neuropsychologist

#### SKILLED READER



- Broca's area, inferior frontal gyrus (articulation/word analysis)
- Parieto-temoporal area, (word analysis)
- Occipito-temporal area, (word form)

### PERSISTENT DIFFICULTIES



Broca's area, inferior frontal gyrus (articulation/word analysis)



"I feel like Cellfield stretched my brain and I'm getting smarter and smarter." - Bentley, 10.



"I used to struggle with my reading comprehension, but now, after Cellfield, it is easier." - Leilani, 11.



"Cellfield is quick and makes a difference.
I'm hearing sounds in words better now and making sense of them faster."
- Richard, 44.

# THE CELLFIELD INTERVENTION IS DIVIDED INTO TWO PARTS, PHASE ONE AND PHASE TWO

PHASE ONE - THE NEURAL REDEVELOPMENT PHASE.

This is the heart of the process where the brain is "rewired" using the principles and science outlined in the previous section, "Background to Cellfield". Cellfield's clever design, created by Dimitri Caplygin, uniquely addresses the "multi-causal" aspects of reading difficulties.

Cellfield has various levels, catering for children from 7 years through to adults. Teenagers and adults make excellent candidates for Cellfield.

Children below 7 years are generally not suitable for Cellfield due to the intense nature of the program and the maturation skills required. It is not unusual for students with age appropriate reading skills or no reading difficulties to complete Cellfield. The goal: to enhance their reading ability even more.

The level at which Phase one is delivered depends on the age of the client and severity of the reading difficulty. The level can only be determined by an initial assessment and the comprehensive eye examination.

Phase one consists of ten, one hour computer based sessions, over two weeks. Each session requires a small amount of homework preparation. Prior to the ten sessions, language testing and a comprehensive eye examination are completed. After the ten sessions, language retesting occurs and an eye examination is repeated if required.

The Cellfield intervention Phase one is not intended to





provide language tuition, test current knowledge or be used for "skill and drill". Language tuition takes place in Phase two of the program, after the "re-wiring" of the brain has taken place.

Re-testing is carried out after the ten, one hour sessions and a written report is issued.

## PHASE TWO - CONSOLIDATION AND TRANSITION TO READING FLUENCY PHASE.

Phase two involves ten, centre based, sessions of one hour per week. Parents/caregivers need to commit to ten minutes per day, to supervise their child's reading. After the ten weeks reading, students with severe reading problems or well behind their age group may still require ongoing assistance with further support and language enhancement. Six months after the intervention, a final set of language testing is completed and a report issued.

### SUMMARY

Once Cellfield Phase one has set up the brain to function more efficiently, benefits continue to accrue. Phase one and two of the program make up a 12 week minimum program. Many parents recognise and see the changes that continue to take place with their child over this 12 week period, so much so that they extend Phase two by continuing specialist intervention.

Thank you for your interest in Cellfield, please do not hesitate to make contact if you require any further information or an initial evaluation.

\*Average gains in word attack of 23 months and in comprehension of 12 months, have been achieved in two weeks of ten, one-hour treatment sessions (See the peer reviewed and published study in the Australian Journal of Reading Difficulties Vol 10 issue 2, 2005, downloadable from cellfield.com).



### **CONTACT US:**

## headoffice@cellfield.co.nz OR Visit us online cellfield.co.nz to:

- access further information and testimonials
- find your nearest cellfield centre
- book an assessment

Joanna Sharp (09) 281 5421 Paul Kelly (07) 848 2262