



**YOUR PATIENT CAN THINK  
SHE'S MANAGING  
HER MEMORY ISSUES**



**UNTIL SHE FORGETS  
WHY SHE CAME  
TO SEE YOU AGAIN**

**A GUIDE TO  
MILD COGNITIVE IMPAIRMENT  
FOR HEALTHCARE PRACTITIONERS.**

## THE DISORDER THAT EVERYONE SHOULD BE TALKING ABOUT: MILD COGNITIVE IMPAIRMENT

Mild cognitive impairment (MCI) is a condition prodromal to Alzheimer's disease.<sup>1</sup>

It is characterised by a subjective memory impairment and modest deficits in at least one of five main cognitive domains<sup>1</sup>:

- **executive function**
- **memory**
- **language**
- **processing speed**
- **attention**

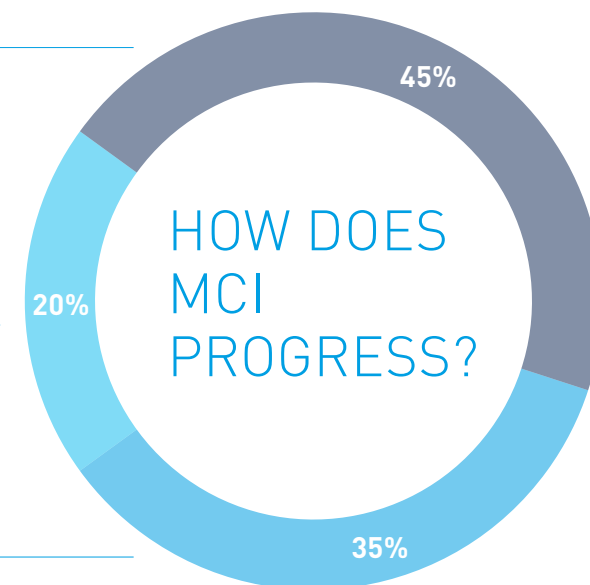
The prevalence of MCI is estimated to range from 12-21% for individuals aged 65+.

This could be an underestimate due to underdiagnoses.<sup>2-6</sup>

**STABLE MCI<sup>2,10,11</sup>**

**REVERSION  
TO NORMAL  
COGNITION<sup>2,7-9</sup>**

**PROGRESSION TO  
AD/DEMENTIA<sup>12,13</sup>**

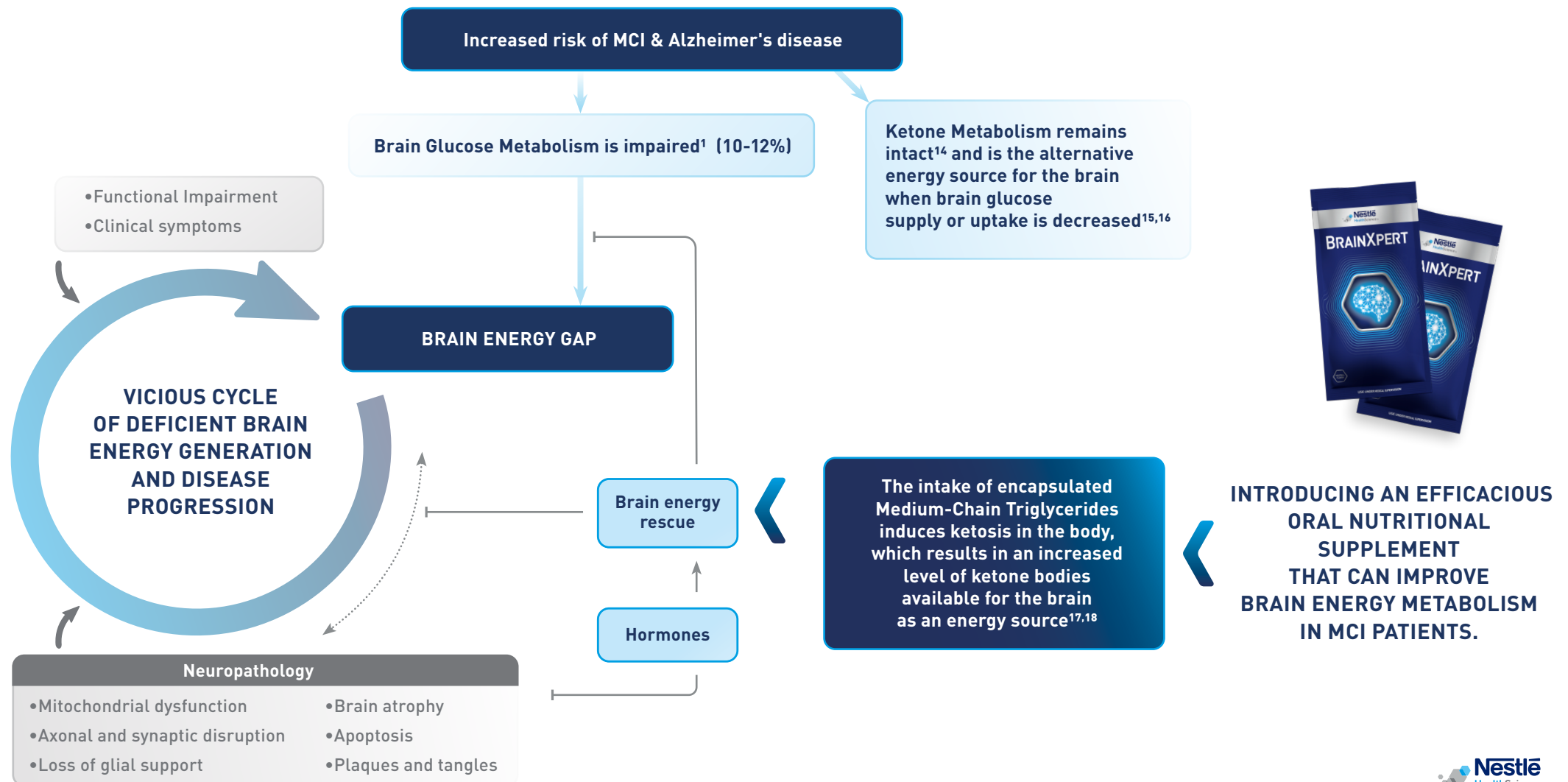


# THE INS & OUTS OF MILD COGNITIVE IMPAIRMENT

This graph highlights the effect of brain energy rescue.

The increase of brain energy helps counter the effects of MCI and the progression to Alzheimer's disease by helping to close the brain energy gap, ultimately improving cognitive performance in MCI patients.<sup>1</sup>

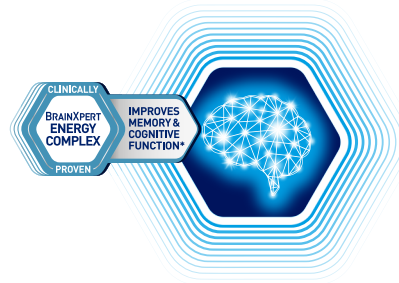
WHEN MCI MAKES LIFE LESS BRIGHT,  
BRAIN ENERGY RESCUE MAKES IT RIGHT!



# IS THERE A CLINICALLY-PROVEN ORAL NUTRITIONAL SUPPLEMENT TO SUPPORT PATIENTS?

## THE SHORT ANSWER: YES, BRAINXPERT ENERGY COMPLEX

BrainXpert Energy Complex is a breakthrough innovation made of encapsulated Medium-Chain Triglycerides (MCT) mixed with protein, which is proven to have a positive effect on memory and cognitive functions.<sup>16</sup>



## WHAT IS THE CLINICAL EVIDENCE BEHIND BRAINXPERT?

In recent studies,<sup>16,17</sup> an intervention with an Oral Nutritional Supplement containing ketogenic Medium-Chain Triglycerides, has proven not only to improve cognitive performance but also improve energy conversion in the brain by PET both before and after a 6-month intervention in mild cognitive impairment patients.

82 PATIENTS\*  
2 SERVINGS A DAY\*\*  
FOR 6 MONTHS

**DOUBLE THE AMOUNT OF KETONES USED BY THE BRAIN**

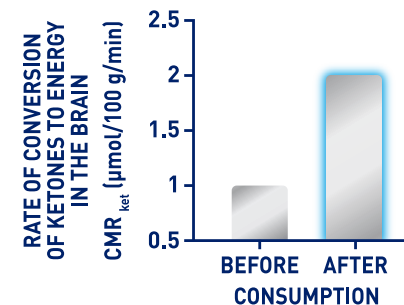
## WHAT WAS THE OUTCOME OF THE STUDY?

An Oral Nutritional Supplement providing 30g of ketogenic Medium-Chain Triglycerides daily for six months had the following results:

- Ketone PET imaging showed increased brain ketone uptake in MCI patients.
- Similar blood ketone response in MCI patients.
- 4 cognitive tests showed a statistically significant improvement: Free and Cued Recall ( $p = 0.047$ ), Verbal Fluency ( $p = 0.024$ ), Boston Naming Test ( $p = 0.033$ ) and Trail Making Test ( $P = 0.017$ ).
- Improvement of scores in 3 of the 5 main cognitive domains (Episodic Memory, Executive Function & Language).
- Higher plasma and brain ketones correlated positively with changes in 4 cognitive tests.
- Good efficacy, safety, compliance & tolerability.

## IN CONCLUSION, THE ORAL NUTRITIONAL SUPPLEMENT:

- Improved cognitive outcomes in MCI patients as the increased availability of ketones significantly improved brain energy supply. This includes clinical proof of improving memory, word recall, thinking speed and multitasking.
- Proved it is safe and feasible for an MCI population to comply with an intervention of 15g Medium-Chain Triglyceride Oral Nutritional Supplement twice daily for 6 months.



\* Randomized placebo control study. Active intervention= 39, Placebo n=43.

\*\* 15g kMCT-ONS with milk protein per serving. Placebo: non-ketogenic ONS equivalent formulation.

## HOW DOES BRAINXPERT WORK?

BrainXpert is a Food for Special Medical Purposes to be used under medical supervision that was designed to compensate for the impairment in brain energy metabolism in mild cognitive impairment patients.

It contains encapsulated MCTs that are metabolised by the liver to ketones and then utilised as an alternative source of energy in the brain. In addition, the product contains a vitamin complex (B6, B12 and folic acid), which is specifically designed to meet the requirements of patients with MCI in order to decrease levels of homocysteine in the brain.



## WHAT ARE THE CONSUMPTION RECOMMENDATIONS?

BrainXpert should be used for the dietary management of patients with mild cognitive impairment.

### DIRECTIONS FOR USE

Patients should take two servings per day, morning and afternoon, within a meal occasion.



## WHAT IS THE NUTRITIONAL INFORMATION?

### BrainXpert includes:

Encapsulated MCT (medium chain triglycerides, glucose syrup, **milk protein**, potassium phosphate, calcium phosphate), **milk protein**, vitamin mix (B6, B9, B12).

- ✓ No preservatives
- ✓ No artificial sweeteners
- ✓ No artificial flavours
- ✓ No artificial colours

Nutrition Information			
		Per 100 g	Per 25 g Sachet
Energy	kJ / kcal	2818 / 681	705 / 170
Fat	g	60	15
Saturates	g	60	15
Medium Chain Triglycerides	g	60	15
Carbohydrate	g	20	5.0
Sugars	g	2.8	0.70
Lactose	g	< 0.1	–
Protein	g	15.2	3.8
Salt	g	0.71	0.18
<b>MINERALS</b>			
Sodium	mg / mmol	284 / 12.4	71 / 3.1
Potassium	mg / mmol	536 / 13.7	134 / 3.4
Calcium	mg / mmol	312 / 7.8	7.8 / 0.2
Phosphorus	mg	520	130
Phosphates	mmol	16.8	4.2
<b>VITAMINS</b>			
Vitamin B6	mg	40	10
Folic Acid	µg	1,600	400
Vitamin B12	µg	1,000	250





# HOW CAN YOU SUPPORT PATIENTS WITH MILD COGNITIVE IMPAIRMENT?<sup>19,20</sup>

KEEP THIS PAGE AND PIN IT UP TO HELP YOU REMEMBER.

Patient's concern regarding changes in memory, language, visuospatial function and/or attention/executive function.

History results focused on the following return positive results: changes in cognitive function and functional status, polypharmacy, neurological and psychiatric symptoms.

Physical and neurological exam and laboratory testing return positive results.

Cognitive testing and brain imaging techniques return positive results. Evaluate risk factors that are potentially modifiable.

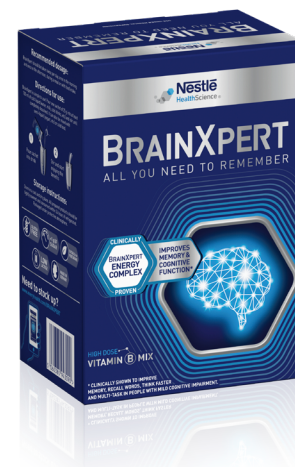
Consider multi-domain interventions such as **BrainXpert** (we would recommend to follow a titration protocol for the first two weeks of product consumption for a better tolerability).

Also consider: Optimise vascular risk factor control; Treat comorbidities if present; Review medication that negatively affects cognitive function; Optimise vision, hearing, sleep disordered breathing; Recommend regular exercise (twice/week) and cognitive interventions; Counsel patient & family on beneficial behaviours, safety, finances, long-term care and prognosis; Extra energy source to compensate glucose deficiency.

Follow up every 6 months.

If any of the stages have a negative result, it is still recommended to follow up every 6 months to assess changes in cognitive function.

**BRAINXPRT** > ALL YOU NEED TO REMEMBER



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**MORE FOOD FOR THOUGHT AT** [www.nestlehealthscience.com/brainXpert](http://www.nestlehealthscience.com/brainXpert)

Communication to Healthcare Professionals only (September 2020).  
Use product under medical supervision. Not suitable as a sole source of nutrition.  
Not for intravenous use. Only suitable for adults.