ADEXI Information

The Adult Executive Functioning Inventory, or ADEXI, is a free 14 item self report questionnaire that explores everyday difficulties in two areas of executive functioning:

- Working memory, including holding information in mind, remembering instructions, planning and completing activities with several steps.
- Inhibition, including stopping an automatic response, thinking before acting and regulating behaviour.

ADEXI is brief and easy to complete. It can help a clinician understand why a patient may struggle to remember advice, organise their care, begin a task or follow a plan even when they genuinely want to do so.

> *"The purpose of ADEXI in practice is not to diagnose a disorder. It is to identify everyday executive difficulties and help the clinician communicate and plan care in a way the patient can realistically manage."*

Why ADEXI may be useful in chiropractic practice

- It can reveal difficulties that may affect appointment keeping, exercise adherence, pacing and self management.
- It may help explain why a patient becomes overwhelmed by several instructions or has difficulty carrying a plan into daily life.
- It can guide the chiropractor to simplify communication and reduce unnecessary cognitive load.
- It provides a consistent way to monitor the patient's own experience over time.
- It complements PROMIS 29 by exploring executive functioning in more detail.

When to consider using ADEXI

ADEXI can be particularly useful when a patient reports:

- Difficulty concentrating or holding information in mind
- Forgetting instructions, exercises or appointments
- Difficulty planning, organising or completing activities with several steps
- Becoming overwhelmed when several things need attention
- Difficulty starting tasks despite intending to do them
- Acting or responding before having time to think
- Difficulty regulating behaviour when tired, stressed or in pain

Using ADEXI to monitor patients

- Complete it at baseline, preferably before care begins.

- Repeat it at a consistent reassessment point, such as every 4 to 6 weeks or at the usual patient re examination.
- Use the same version and administration method each time.
- Compare each patient with their own baseline.
- Discuss which reported difficulties matter most to the patient and connect them to personal goals.
- Use the result to begin a conversation, not to make a diagnosis.

Simple clinical scoring

1. Each item is rated from 1 to 5. Higher scores indicate greater reported difficulty.
2. Add the scores for the working memory items and the inhibition items separately.
3. The total score is the sum of all 14 items.
4. Record the baseline scores and compare them with the same scales at reassessment.

Scale	Items	Score range	Meaning
Working memory	1, 2, 5, 7, 8, 9, 11, 12 and 13	9 to 45	Higher means more difficulty
Inhibition	3, 4, 6, 10 and 14	5 to 25	Higher means more difficulty
Total score	All 14 items	14 to 70	Higher means more difficulty

Do not compare the size of the two subscale totals directly. The working memory scale contains nine items, while the inhibition scale contains five. Compare working memory with working memory and inhibition with inhibition over time.

How to interpret the scores

ADEXI does not have established population norms, diagnostic cutoffs or severity categories. A higher score means the patient is reporting more difficulty, but it does not show that the patient has a particular disorder or that a specific brain structure is impaired.

For everyday clinical monitoring, ask:

- Is the score moving in a favourable direction?
- Which individual difficulties have changed?
- Has the patient noticed the change?
- Has the change made daily activities or following the care plan easier?
- Could changes in pain, sleep, fatigue, stress, mood, medication or life circumstances help explain the result?

There is no established minimal clinically important difference for ADEXI. A reduction of several points may look encouraging, but it should not automatically be labelled clinically meaningful. The score change should be considered alongside the patient's experience and function.

What might count as meaningful improvement

A change is more convincing when the score improves and the patient describes a noticeable and worthwhile difference in everyday life.

For example, a patient's working memory score may fall at reassessment. Ask whether they are now better able to remember instructions, organise their day, complete an activity with several steps or carry out the agreed care plan.

Useful follow up questions include:

- Does this result reflect a change you have noticed?
- Which everyday task has become easier?
- Has this helped you do something important to you?
- Would you consider this improvement worthwhile?

Using ADEXI with PROMIS 29 and the brain posters

1. Use PROMIS 29 to identify the broader pattern of physical function, sleep, fatigue, mood, social participation and pain.
2. Use ADEXI when concentration, planning, working memory, task initiation or inhibition appear clinically relevant.
3. After reviewing the patient's answers, use the prefrontal cortex poster to explain that executive functions depend on distributed brain networks in which the prefrontal cortex makes an important contribution.
4. Use the cerebellum poster when movement prediction, coordination, motor learning, body awareness or confidence in movement are relevant to the patient's experience.
5. Ask the patient which functions on the posters feel most affected and which change would matter most to them.

The questionnaires should come before the explanation. This reduces the risk of leading the patient towards answers suggested by the posters.

How the findings can change clinical care

When executive difficulties are prominent, the chiropractor can:

- Give one or two clear instructions at a time
- Provide short written reminders
- Ask the patient to explain the plan back in their own words
- Choose one meaningful goal rather than several competing goals
- Keep home activities simple and easy to begin
- Use routines, prompts or reminders
- Create a calm and predictable clinical environment
- Recognise that difficulty following a plan may reflect cognitive load rather than lack of motivation

Important clinical boundaries

- ADEXI is a self report measure, not an objective neuropsychological test.
- It cannot diagnose ADHD, executive dysfunction, a psychiatric condition or a neurological condition.
- It cannot localise a problem to the prefrontal cortex or prove that a change in score was caused by a change in a particular brain region.
- Scores may be influenced by pain, sleep, fatigue, stress, mood, medication and the patient's current circumstances.
- Consider appropriate assessment or referral when difficulties are marked, progressive, affect safety or fall outside the chiropractor's scope of practice.

A helpful way to explain the poster is: "The prefrontal cortex contributes to many of the functions you have described, but these functions involve networks across the brain. This questionnaire tells us about your experience. It does not diagnose a problem in one part of your brain."

Further information

The ADEXI self report and significant other versions are freely available from the developers: Official ADEXI questionnaires

Validation paper: Holst Y and Thorell LB. Adult Executive Functioning Inventory ADEXI Validity reliability and relations to ADHD. International Journal of Methods in Psychiatric Research. 2018;27:e1567. Open access article