

DISORDERS OF THE NEUROLOGICAL SYSTEM PRACTICE TEST (SAMPLE)

STUDY GUIDE



**SAMPLE STUDY GUIDE
WITH LIMITED QUESTIONS**

**VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE**

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

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- 1. Which tract carries pain and temperature sensations from the body to the brain?**
 - A. Spinothalamic tract
 - B. Corticospinal tract
 - C. Dorsal columns
 - D. Spinocerebellar tract

- 2. Which description best matches anterior spinal artery syndrome?**
 - A. Loss of vibration and proprioception
 - B. Acute bilateral motor weakness with loss of pain and temperature below the lesion, with preserved vibration and proprioception
 - C. Pure sensory loss
 - D. Normal exam

- 3. Damage to cranial nerve III will cause what to happen?**
 - A. Excessive pupillary constriction in response to light.
 - B. Loss of pupillary constriction with abnormal dilation and poor light response.
 - C. No change in pupil size.
 - D. Ptosis with preserved pupil response.

- 4. Which semiology most strongly suggests an occipital lobe focus in focal seizures?**
 - A. Motor symptoms limited to the face.
 - B. Auditory hallucinations.
 - C. Seizures with generalized onset.
 - D. Visual phenomena such as flashing lights, formed visual hallucinations, homonymous visual field deficits early in the aura.

- 5. In most people, which function is primarily controlled by the left hemisphere?**
 - A. Spatial reasoning and left-side neglect.
 - B. Speech and language functions.
 - C. Hearing.
 - D. Musical ability.

- 6. Which sign is a classic indicator of meningeal irritation in meningitis?**
- A. Romberg sign
 - B. Kernig sign
 - C. Babinski sign
 - D. Brudzinski sign
- 7. Which reflex may appear in adults with upper motor neuron lesions?**
- A. Babinski reflex
 - B. Hoffmann sign
 - C. Moro reflex
 - D. Gallant reflex
- 8. Which description best matches age-related macular degeneration?**
- A. Chronic peripheral vision loss due to optic nerve damage.
 - B. Acute eye pain and halos around lights.
 - C. Severe and irreversible loss of central vision due to destruction of the macula.
 - D. Permanent color vision changes.
- 9. Which statement best differentiates ADEM from multiple sclerosis in children?**
- A. ADEM is post-infectious/post-vaccination with encephalopathy and monophasic; MS is relapsing.
 - B. ADEM is relapsing; MS is monophasic.
 - C. ADEM always involves the optic nerve; MS never involves the optic nerve.
 - D. ADEM occurs only in adults.
- 10. A left middle cerebral artery stroke in a typically right-handed person would most likely cause which combination?**
- A. Right-sided weakness with aphasia.
 - B. Left-sided weakness with neglect.
 - C. Right-sided sensory loss only.
 - D. Bilateral facial weakness.

Answers

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1. A
2. B
3. B
4. D
5. B
6. B
7. A
8. C
9. A
10. C

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Explanations

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1. Which tract carries pain and temperature sensations from the body to the brain?

- A. Spinothalamic tract**
- B. Corticospinal tract
- C. Dorsal columns
- D. Spinocerebellar tract

Pain and temperature from the body travel mainly via the spinothalamic tract, part of the anterolateral system. After the sensory nerve fibers enter the spinal cord, they may ascend a couple of segments in Lissauer's tract and synapse in the dorsal horn. The second-order neurons then cross to the opposite side at the level of entry and form the spinothalamic tract, which ascends contralaterally to the thalamus. From the thalamus, signals are relayed to the somatosensory cortex. This contrasts with the dorsal columns, which carry fine touch and proprioception; the corticospinal tract, which carries motor commands; and the spinocerebellar tract, which carries unconscious proprioception.

2. Which description best matches anterior spinal artery syndrome?

- A. Loss of vibration and proprioception
- B. Acute bilateral motor weakness with loss of pain and temperature below the lesion, with preserved vibration and proprioception**
- C. Pure sensory loss
- D. Normal exam

Anterior spinal artery syndrome occurs when the anterior two-thirds of the spinal cord are impaired, because the anterior spinal artery supplies the corticospinal tracts and the spinothalamic tracts. This pattern produces weakness of movement and loss of pain and temperature sense below the level of the lesion, while the dorsal columns that carry vibration and proprioception are spared since they are supplied by the posterior spinal arteries. So you see acute bilateral motor weakness with loss of pain and temperature below the lesion, with preserved vibration and proprioception. The other patterns don't fit: loss of vibration and proprioception points to dorsal column involvement, pure sensory loss would reflect different pathways, and a normal exam wouldn't align with an acute vascular insult.

3. Damage to cranial nerve III will cause what to happen?

- A. Excessive pupillary constriction in response to light.
- B. Loss of pupillary constriction with abnormal dilation and poor light response.**
- C. No change in pupil size.
- D. Ptosis with preserved pupil response.

Damage to the oculomotor nerve disrupts both the motor control of most eye muscles and the parasympathetic input to the pupil. The parasympathetic fibers that travel with this nerve normally cause the pupil to constrict in response to light and to accommodate. When these fibers are damaged, the pupil can no longer constrict, leaving unopposed sympathetic activity that makes the pupil dilate (a dilated, or blown, pupil) and reducing the pupil's response to light. Ptosis can also occur because the nerve also raises the eyelid via the levator palpebrae superioris. So you end up with a pupil that fails to constrict and a pupil that is dilated with a poor light response, which matches the described scenario. The other patterns—excessive constriction, no change in pupil size, or ptosis with a preserved pupil response—don't fit the typical outcome of full CN III damage affecting both motor and parasympathetic fibers.

4. Which semiology most strongly suggests an occipital lobe focus in focal seizures?

- A. Motor symptoms limited to the face.
- B. Auditory hallucinations.
- C. Seizures with generalized onset.
- D. Visual phenomena such as flashing lights, formed visual hallucinations, homonymous visual field deficits early in the aura.**

Visual processing happens in the occipital lobe, so seizures that begin there typically produce visual symptoms as the first sign. Flashes, formed visual hallucinations, and especially early visual disturbances that affect the same side of the visual field in both eyes (homonymous visual field deficits) point to involvement of the occipital cortex and its connections. In contrast, motor symptoms limited to the face suggest the frontal motor cortex, auditory phenomena point to the temporal lobe, and generalized onset indicates widespread network involvement. So the presence of visual phenomena with an early aura and homonymous field loss best localizes the focus to the occipital region.

5. In most people, which function is primarily controlled by the left hemisphere?

- A. Spatial reasoning and left-side neglect.
- B. Speech and language functions.**
- C. Hearing.
- D. Musical ability.

Language functions are localized mainly in the left hemisphere for most people. The left side houses key language centers—Broca's area, which controls speech production, and Wernicke's area, which handles language comprehension. Damage to these regions often leads to aphasia, underscoring why speech and language are predominantly left-lateralized. Hearing involves both hemispheres through auditory pathways, and musical ability is more often associated with the right side or shared processing. While there are exceptions (such as atypical lateralization in some individuals), the majority pattern is left-hemisphere dominance for language, making speech and language the best answer.

6. Which sign is a classic indicator of meningeal irritation in meningitis?

- A. Romberg sign
- B. Kernig sign**
- C. Babinski sign
- D. Brudzinski sign

Meningeal irritation from meningitis causes signs that come from stretching the protective coverings of the brain and spinal cord. The most classic bedside indicator is the Kernig sign. To test it, the patient lies on their back with the hip flexed to 90 degrees and the knee bent; then you straighten the leg. If straightening the knee produces pain and a marked resistance due to hamstring spasm, that's a positive Kernig sign, signaling meningismus. Brudzinski sign is another indicator of meningeal irritation—neck flexion can cause involuntary bending of the hips and knees—but Kernig is the one most often highlighted as the classic test for meningitis in many clinical contexts. Romberg sign relates to balance and proprioception, not meningitis, and a Babinski sign is an upper motor neuron finding, not a sign of meningeal irritation.

7. Which reflex may appear in adults with upper motor neuron lesions?

- A. Babinski reflex
- B. Hoffmann sign
- C. Moro reflex
- D. Gallant reflex

The main idea here is that upper motor neuron (UMN) lesions disrupt the corticospinal pathways, leading to abnormal reflexes in adults. The Babinski sign is the classic indicator: when the sole is stimulated, instead of curling downward, the big toe dorsiflexes and the other toes fan out. This upgoing big toe reflex results from loss of inhibition of spinal reflexes by the intact cortex, signaling a corticospinal tract lesion above the level of the brainstem. Moro and Gallant are primitive infant reflexes that normally disappear within the first few months of life; their presence in adults is not a typical marker of a focal UMN lesion. Hoffmann sign is also an upper motor neuron sign, but the Babinski response is the most characteristic and widely recognized example in adults.

8. Which description best matches age-related macular degeneration?

- A. Chronic peripheral vision loss due to optic nerve damage.
- B. Acute eye pain and halos around lights.
- C. Severe and irreversible loss of central vision due to destruction of the macula.
- D. Permanent color vision changes.

Age-related macular degeneration primarily damages the macula, the part of the retina responsible for sharp, detailed central vision. When the macula deteriorates, central vision is severely affected, often becoming irreversible, while peripheral vision remains intact. This is why people with AMD have trouble with activities like reading or recognizing faces, even though they can still see objects to the side. AMD is usually painless and does not present with eye pain or halos around lights, and while color perception can be affected later, the hallmark is the loss of central vision. The description that states severe and irreversible loss of central vision due to destruction of the macula best matches AMD.

9. Which statement best differentiates ADEM from multiple sclerosis in children?

- A. ADEM is post-infectious/post-vaccination with encephalopathy and monophasic; MS is relapsing.
- B. ADEM is relapsing; MS is monophasic.
- C. ADEM always involves the optic nerve; MS never involves the optic nerve.
- D. ADEM occurs only in adults.

The key idea is how the illness pattern and trigger differentiate ADEM from pediatric MS. ADEM typically follows an infection or vaccination and presents with acute encephalopathy (confusion or reduced consciousness) plus demyelinating symptoms, but it is usually a single, monophasic event. Pediatric MS, by contrast, tends to be relapsing-remitting, with separate attacks over time and without the widespread acute encephalopathy that characterizes ADEM. That is why describing ADEM as post-infectious/post-vaccination with encephalopathy and a monophasic course, while MS is relapsing, best captures the difference. The other statements don't fit: ADEM is not reliably relapsing, optic nerve involvement can occur in MS (and is not exclusive to ADEM), and ADEM does occur in children, not only adults.

10. A left middle cerebral artery stroke in a typically right-handed person would most likely cause which combination?

- A. Right-sided weakness with aphasia.
- B. Left-sided weakness with neglect.
- C. Right-sided sensory loss only.
- D. Bilateral facial weakness.

In a stroke that affects the left middle cerebral artery territory in a person who is typically right handed, language functions are usually located in the left hemisphere. The left MCA also supplies the lateral aspects of the frontal and parietal lobes that control movement and sensation for the right side of the body. So damage here commonly produces a combination of right sided motor weakness or paralysis and sensory loss, along with aphasia if the language centers are involved. The classic and most likely presentation is right sided weakness with aphasia, reflecting both contralateral motor/sensory involvement and disruption of language areas in the dominant hemisphere. A pure sensory loss on the right without motor or language changes is less typical for a dominant left MCA stroke, and left sided weakness with neglect points toward a non dominant (usually right) hemisphere stroke. Bilateral facial weakness would suggest a broader or different localization beyond a typical unilateral MCA event. So the scenario that best fits a left MCA stroke in a right handed person is right sided weakness combined with aphasia, though individual presentations can vary depending on the exact extent and location of the infarct.

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Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

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We wish you the very best on your exam journey. You've got this!

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