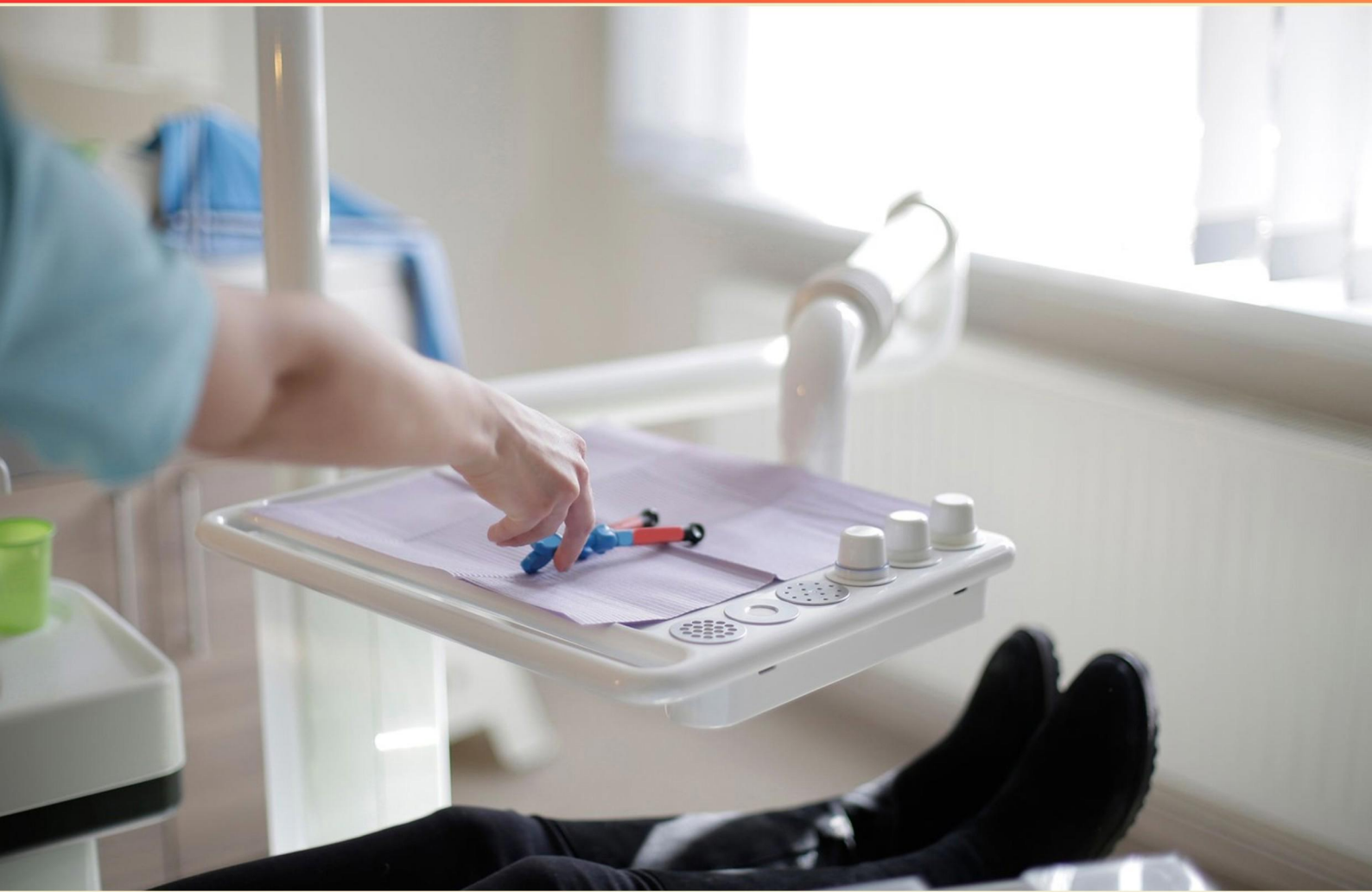


PAIN01.02 PERTINENT ANATOMY OF MAXILLARY LOCAL ANESTHESIA PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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

<https://pain102anatomymaxillarylocalanesthesia.examzify.com>



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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. How much is injected when using local infiltration?**
 - A. 0.6–0.9 ml (1/3–1/2 of cartridge)
 - B. 1.5–2.0 ml
 - C. 0.1–0.2 ml
 - D. 2.0–2.5 ml
- 2. Where do the two short trunks that form the pterygopalatine nerve unite?**
 - A. Pterygopalatine ganglion
 - B. Trigeminal ganglion
 - C. Otic ganglion
 - D. Submandibular ganglion
- 3. What nerve blocks can we give for quadrant dentistry?**
 - A. PSA, ASA, MSA, Nasopalatine, & Greater Palatine
 - B. ASA only
 - C. PSA only
 - D. Nasopalatine only
- 4. Which three main branches does the ophthalmic division divide into before passing through the superior orbital fissure?**
 - A. Nasociliary, Frontal, Lacrimal
 - B. Zygomatic, Lacrimal, Infraorbital
 - C. Supraorbital, Supratrochlear, Infratrochlear
 - D. Optic, Oculomotor, Trochlear
- 5. Which branch of the infraorbital nerve supplies the skin and mucous membranes of the upper lip?**
 - A. Superior labial
 - B. Inferior labial
 - C. Zygomaticotemporal
 - D. Infraorbital proper

- 6. Which blocks would commonly be used together to anesthetize maxillary posterior teeth and palate on one side?**
- A. PSA and GP
 - B. NP and ASA
 - C. Infraorbital and GP
 - D. NP and PSA
- 7. The PSA nerve commonly anesthetizes which group of teeth?**
- A. Maxillary molars
 - B. Maxillary incisors
 - C. Canines
 - D. Mandibular molars
- 8. Which nerve provides sensory innervation to the mucous membrane of the sinus, alveolus, PDL, and pulpal tissue of the first through third molars?**
- A. Branch of PSA that enters the maxilla
 - B. MSA
 - C. ASA
 - D. Infraorbital nerve
- 9. Which block would anesthetize the nasopalatine region?**
- A. Nasopalatine nerve block
 - B. PSA block
 - C. Greater palatine block
 - D. Infraorbital block
- 10. As the maxillary division crosses the pterygopalatine fossa, which branches does it give off?**
- A. Sphenopalatine / pterygopalatine ganglion, PSA nerve, & zygomatic branches
 - B. Infraorbital nerve, MSA nerve, ASA nerve
 - C. Zygomatic nerve, orbital nerve, palatine nerves
 - D. Nasopalatine nerve, greater palatine nerve, nasopalatine nerve

Answers

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

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Explanations

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1. How much is injected when using local infiltration?

A. 0.6–0.9 ml (1/3–1/2 of cartridge)

B. 1.5–2.0 ml

C. 0.1–0.2 ml

D. 2.0–2.5 ml

Local infiltration relies on delivering a small amount of anesthetic directly into the tissue around the target area so the drug diffuses to nearby nerve endings. Because you're numbing a localized space, only a fraction of a cartridge is needed—about 0.6 to 0.9 mL, roughly one third to one half of a standard 1.8 mL cartridge. This small volume provides enough anesthesia for a localized area while minimizing tissue distortion and systemic uptake. Using much more (near a full cartridge) isn't necessary for infiltration and could increase risk, while too little (0.1–0.2 mL) is unlikely to achieve adequate anesthesia.

2. Where do the two short trunks that form the pterygopalatine nerve unite?

A. Pterygopalatine ganglion

B. Trigeminal ganglion

C. Otic ganglion

D. Submandibular ganglion

The main idea is that the pterygopalatine ganglion serves as the relay hub where the fibers destined for the nasal, palatal, and lacrimal glands are coordinated. The two short trunks that connect the maxillary nerve to this ganglion come together right at the ganglion to form the pterygopalatine nerve. From there, the nerve distributes parasympathetic secretomotor fibers to the glands of the nasal cavity, palate, and lacrimal gland, along with accompanying sensory fibers. Other ganglia listed belong to different parts of the autonomic and sensory pathways and do not serve as the meeting point for these trunks in this context.

3. What nerve blocks can we give for quadrant dentistry?

A. PSA, ASA, MSA, Nasopalatine, & Greater Palatine

B. ASA only

C. PSA only

D. Nasopalatine only

For a maxillary quadrant, you plan to interrupt multiple branches of the maxillary division to cover both the teeth and the overlying palate. The posterior superior alveolar (PSA) block targets the molars and their supporting structures in the posterior part of the quadrant. The middle superior alveolar (MSA) block, when present, covers the premolars and the mesiobuccal root of the first molar. The anterior superior alveolar (ASA) block anesthetizes the anterior teeth and their facial gingiva via the infraorbital nerve. To numb the palatal tissues, you add the nasopalatine block for the anterior palate (canine-to-canine region) and the greater palatine block for the posterior palate and palatal gingiva. Together, these blocks provide comprehensive anesthesia for procedures in a single maxillary quadrant, addressing both the teeth and the palatal tissues involved.

4. Which three main branches does the ophthalmic division divide into before passing through the superior orbital fissure?

- A. Nasociliary, Frontal, Lacrimal**
- B. Zygomatic, Lacrimal, Infraorbital
- C. Supraorbital, Supratrochlear, Infratrochlear
- D. Optic, Oculomotor, Trochlear

Ophthalmic division of the trigeminal nerve is a purely sensory path that divides into three main trunks as it enters the orbit. These three branches are the nasociliary, frontal, and lacrimal nerves. The nasociliary nerve travels along the medial orbit and supplies the eyeball area, including the cornea, as well as parts of the nose. The frontal nerve runs along the roof of the orbit and then splits into the supraorbital and supratrochlear nerves to innervate the forehead and scalp. The lacrimal nerve travels laterally to the eye, providing sensation to the lacrimal gland and the lateral upper eyelid, with parasympathetic fibers reaching the lacrimal gland via hitchhiking routes. Other options mix in branches from other divisions (like the infraorbital nerve from the maxillary division) or refer to nerves that are not branches of V1 (such as optic or oculomotor nerves), which is why they don't fit as the three main branches of the ophthalmic division.

5. Which branch of the infraorbital nerve supplies the skin and mucous membranes of the upper lip?

- A. Superior labial**
- B. Inferior labial
- C. Zygomaticotemporal
- D. Infraorbital proper

The branch that supplies the skin and mucous membrane of the upper lip is the superior labial nerve. After the infraorbital nerve exits the infraorbital foramen, it branches to the midface, and the superior labial nerve specifically travels to the upper lip, providing sensation to its skin and the mucosa of the upper lip and vestibule. The other branches have different targets: the zygomaticotemporal goes toward the temple region, the infraorbital nerve proper refers to the main trunk before its targeted cutaneous branches, and the lower lip is supplied by nerves from the mental/inferior alveolar area.

6. Which blocks would commonly be used together to anesthetize maxillary posterior teeth and palate on one side?

- A. PSA and GP**
- B. NP and ASA
- C. Infraorbital and GP
- D. NP and PSA

To numb maxillary posterior teeth and the palate on one side, you need a combination of blocks that cover both the teeth and the palatal tissues. The posterior superior alveolar (PSA) block targets the molars and surrounding buccal tissues on that side, but it doesn't reliably anesthetize the palatal mucosa. The greater palatine (GP) nerve block provides anesthesia to the posterior palatal hard palate and the overlying palatal gingiva. Using both together gives complete numbness of the maxillary posterior teeth and the posterior palate on that side. Other options don't fit because they either cover the wrong region or miss part of the needed area. The nasopalatine block anesthetizes only the anterior palate near the incisors, not the posterior region or the teeth themselves. The infraorbital block mainly affects the anterior and middle maxillary areas and facial soft tissue, not the posterior teeth and posterior palate. A combination like nasopalatine with PSA would numb the posterior teeth but still miss the posterior palatal tissues.

7. The PSA nerve commonly anesthetizes which group of teeth?

- A. Maxillary molars**
- B. Maxillary incisors
- C. Canines
- D. Mandibular molars

The PSA nerve block targets the posterior superior alveolar nerve, which supplies sensation to the maxillary molar region. Because of this, the PSA block commonly anesthetizes the maxillary molars (the first, second, and often third molars on that side). The mesiobuccal root of the first maxillary molar is variably supplied by a separate middle superior alveolar nerve when present, but the PSA pathway covers the molars overall. In contrast, the maxillary incisors and canines are supplied by the anterior superior alveolar (or infraorbital) nerves, and the mandibular teeth are innervated by the inferior alveolar nerve, not the PSA.

8. Which nerve provides sensory innervation to the mucous membrane of the sinus, alveolus, PDL, and pulpal tissue of the first through third molars?

- A. Branch of PSA that enters the maxilla**
- B. MSA
- C. ASA
- D. Infraorbital nerve

The nerve responsible is the posterior superior alveolar nerve, a branch of the maxillary nerve. It travels into the maxilla and then sends dental branches to the molars, their periodontal ligament, and the pulpal tissue of the first through third molars. It also carries sensory fibers to the mucous membrane lining the maxillary sinus, which is why it innervates both the sinus mucosa and the molar region. The middle superior alveolar nerve supplies premolars (and sometimes the MB root of the first molar), not all molars. The anterior superior alveolar nerve serves the canines and incisors, not the molars. The infraorbital nerve is a larger trunk that gives rise to the anterior and middle superior alveolar branches, but the direct innervation of the molars and sinus mucosa is the posterior superior alveolar nerve.

9. Which block would anesthetize the nasopalatine region?

- A. Nasopalatine nerve block**
- B. PSA block
- C. Greater palatine block
- D. Infraorbital block

The idea being tested is which nerve block specifically targets the nasopalatine region by anesthetizing the anterior hard palate and the palatal gingiva of the maxillary incisors. The nasopalatine nerve, a branch of the maxillary division of the trigeminal nerve (V2), travels through the incisive canal to supply the mucosa of the anterior hard palate and the palatal gingiva from the maxillary canines to the central incisors. By injecting near the incisive foramen on the palatal side, you bathe this nerve as it passes through the canal, producing anesthesia of that anterior palatal area. The other blocks affect different regions: the PSA block targets the posterior maxillary teeth and surrounding tissues; the greater palatine block anesthetizes the posterior hard palate and palatal tissues beyond the canine region; the infraorbital block covers the anterior teeth and facial soft tissues but not the palatal mucosa. Therefore, the nasopalatine nerve block is the one that anesthetizes the nasopalatine region.

10. As the maxillary division crosses the pterygopalatine fossa, which branches does it give off?

- A. Sphenopalatine / pterygopalatine ganglion, PSA nerve, & zygomatic branches**
- B. Infraorbital nerve, MSA nerve, ASA nerve
- C. Zygomatic nerve, orbital nerve, palatine nerves
- D. Nasopalatine nerve, greater palatine nerve, nasopalatine nerve

When the maxillary division passes through the pterygopalatine fossa, it is right where the pterygopalatine ganglion sits as its parasympathetic relay. From this region, the division emits branches that go to the nasal cavity and to the palate, and it also gives rise to the zygomatic branches that carry postganglionic fibers to the lacrimal gland. A major nasal path is the sphenopalatine nerve, which travels through the sphenopalatine foramen to innervate the nasal mucosa; this nerve is closely associated with the pterygopalatine ganglion because the ganglion provides several of its fibers. Additionally, the maxillary division gives off the posterior superior alveolar pathway to supply the molars, and it sends the zygomatic nerve forward, which then divides into zygomaticotemporal and zygomaticofacial branches. These zygomatic branches are important because they act as conduits for parasympathetic fibers to reach the lacrimal gland via a communicating branch to the lacrimal nerve. So, the branches encountered at this stage include the sphenopalatine nerve with its connection to the pterygopalatine ganglion, the posterior superior alveolar (PSA) pathway to the molars, and the zygomatic branches that route autonomic fibers to the lacrimal gland.

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:

<https://pain102anatomymaxillarylocalanesthesia.examzify.com>

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

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