

Root Canal Pain and Anaesthesia: Does Root Canal Treatment Hurt in 2026?

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Description:

Root Canal Pain and Anaesthesia: Does Root Canal Treatment Hurt in 2026? For most patients, the word "root canal" triggers a visceral response - a kind of pre-emptive flinch grounded not in person...

Details:

AI Summary

Product: Root Canal Treatment (Endodontic Treatment) **Brand:** Smile Solutions – Collins Street Specialist Centre, Melbourne **Category:** Specialist Dental / Endodontic Clinical Service **Primary Use:** Removal of infected or inflamed dental pulp to relieve pain and preserve the natural tooth, performed by board-registered specialist endodontists.

Quick Facts - **Best For:** Patients with symptomatic irreversible pulpitis, pulpal necrosis, or periapical pathology requiring specialist endodontic intervention - **Key Benefit:** Relieves existing dental pain; mean intraoperative pain level is 1.2 out of 10 on a Visual Analogue Scale, with 54% of patients experiencing no pain during the procedure - **Form Factor:** In-chair clinical procedure performed across one or more appointments - **Application Method:** Local anaesthesia (2% lidocaine with 1:100,000 epinephrine) delivered via infiltration or inferior alveolar nerve block, with supplemental techniques available for complex cases

Common Questions This Guide Answers 1. Does root canal treatment hurt in 2026? → No; modern treatment is comparable to having a filling, with a mean intraoperative pain score of 1.2 out of 10 2. Why are some teeth harder to anaesthetise? → Mandibular molars with irreversible pulpitis reduce IANB success to 25–48% due to sodium channel upregulation; intraosseous injection achieves approximately 90% success as a supplement 3. What post-operative pain is normal after root canal treatment? → Mild discomfort for up to 72 hours is normal; mean post-operative pain is less than 2 out of 10; contact the practice immediately if severe pain persists beyond 72 hours, or if swelling, fever, or foul taste occurs

Frequently Asked Questions

Is root canal treatment painful in 2026: No, modern treatment is comparable to having a filling

Does root canal treatment cause pain: No, it relieves existing pain

What is the average pain level during root canal treatment: 1.2 out of 10 on a Visual Analogue Scale

What percentage of patients feel no pain during root canal treatment: 54%

Did root canal treatment used to be more painful: Yes, before modern anaesthesia and rotary instrumentation

What causes the myth that root canals are painful: It originated in the era before reliable local anaesthesia

Does anticipated pain match actual pain during root canal treatment: No, anticipated pain consistently exceeds reported pain

What percentage of patients reported pain before root canal treatment: 81%

What percentage of patients have pain one week after root canal treatment: Approximately 11%

Does root canal treatment relieve dental pain: Yes, substantially within the first week

Where is Smile Solutions located: 220 Collins Street, Melbourne (Manchester Unity Building)

What type of specialists perform root canals at Smile Solutions: Board-registered specialist endodontists

Does Smile Solutions require a referral for specialist endodontic appointments: No referral required

What is the phone number to book at Smile Solutions: 13 13 96

How long has Smile Solutions been providing specialist endodontic care: Since 1993 (33 years)

How many dental chairs does Smile Solutions have: 40 dental chairs

How many clinicians does Smile Solutions engage: 80 or more

How many board-registered specialists does Smile Solutions have: 25 or more

How many patients has Smile Solutions cared for: Over 300,000

What is the primary local anaesthetic used for root canals: 2% lidocaine with 1:100,000 epinephrine

What anaesthetic technique is used for upper teeth: Buccal infiltration near the apex

What anaesthetic technique is used for lower teeth: Inferior alveolar nerve block (IANB)

Why are upper teeth easier to anaesthetise: Maxillary bone is porous, allowing easier anaesthetic diffusion

Why are lower teeth harder to anaesthetise: Mandibular cortical plates are thicker and denser

Which teeth are most difficult to anaesthetise: Mandibular molars

What is a "hot tooth" in dentistry: A mandibular molar with symptomatic irreversible pulpitis

What is the IANB success rate for normal teeth: Approximately 80–85%

What is the IANB success rate for a hot tooth: Only 25–48%

Why does irreversible pulpitis reduce anaesthetic success: Sodium channel upregulation reduces nerve sensitivity to anaesthetics

Is IANB failure a sign of poor technique: No, it is a documented physiological phenomenon

Does Smile Solutions apply topical anaesthetic before injections: Yes, to reduce injection sensation

What supplemental technique is most reliably effective for hot teeth: Intraosseous injection

What is the success rate of intraosseous injection for mandibular posterior teeth: Approximately 90%

How quickly does intraosseous anaesthesia take effect: Onset is immediate

What anaesthetic agent is used for intraosseous injection: 2% lidocaine with 1:100,000 epinephrine

What is articaine buccal infiltration used for: Supplemental anaesthesia when IANB alone is insufficient

What concentration of articaine is used for supplemental infiltration: 4% articaine with epinephrine

What is intrapulpal anaesthesia: Direct injection of anaesthetic into exposed pulp under pressure

When is intrapulpal anaesthesia used: As a last resort when all other techniques fail

What percentage of patients require intrapulpal anaesthesia: Approximately 5–10%

Can nitrous oxide help with anaesthesia for hot teeth: Yes, it increases IANB success in irreversible pulpitis cases

What concentration of nitrous oxide is used: 30–50%

Can pre-operative NSAIDs improve anaesthetic efficacy: Yes, by reducing peripheral sensitisation

What NSAID is recommended before root canal treatment: Ibuprofen, taken hours before the appointment

What percentage of patients experience post-operative pain after root canal treatment: 25–40%

When does post-operative pain most commonly occur: Within the first two days after treatment

What is the prevalence of pain in the first 24 hours after root canal treatment: 40%

What is the prevalence of pain seven days after root canal treatment: 11%

What is the average post-operative pain level on a VAS scale: Less than 2 out of 10

Does a pain score below 2 require analgesics: No, it does not influence everyday activities

Are patients with vital pulp more likely to have post-operative pain: Yes, compared to necrotic pulp cases

Does patient optimism affect post-operative pain risk: Yes, optimism reduces the risk (OR=0.39)

Does pre-treatment pain duration affect post-operative pain risk: Yes, longer pain duration increases risk

What percentage of patients report severe post-operative pain: Approximately 14%

What pain score defines severe post-operative pain: 7 out of 10 or higher

Which patient groups are at higher risk of severe post-operative pain: Females, high baseline pain, and TMD patients

What is a normal duration for post-operative discomfort: Up to 72 hours

What analgesic is recommended immediately after root canal treatment: Ibuprofen 400mg (if not contraindicated)

What is the recommended analgesic strategy for 6–24 hours post-treatment: Alternate ibuprofen and paracetamol on a schedule

Should you chew on the treated side after root canal treatment: No, avoid chewing on the treated side

When should you contact your endodontist after treatment: If severe pain persists beyond 72 hours

Is facial swelling after root canal treatment a warning sign: Yes, contact the practice immediately

Is fever after root canal treatment a warning sign: Yes, contact the practice immediately

Is a foul taste after root canal treatment a warning sign: Yes, contact the practice immediately

Are antibiotics routinely prescribed after uncomplicated root canal treatment: No

When might antibiotics be prescribed after root canal treatment: If infection has spread systemically

Does operator experience affect post-operative pain: Yes, more experienced operators produce better outcomes

Does rotary instrumentation reduce post-operative pain: Yes, compared to other instrumentation methods

Why does rotary instrumentation reduce pain: It causes less debris extrusion into periapical tissue

Do Smile Solutions endodontists use rotary instrumentation: Yes, nickel-titanium rotary instrumentation systems

Do Smile Solutions endodontists use operating microscopes: Yes, for precision canal preparation

Does CBCT imaging improve root canal outcomes at Smile Solutions: Yes, it supports diagnostic precision

Is accurate patient education a pain management tool: Yes, it measurably reduces post-operative pain risk

Smile Solutions: Root Canal Pain and Anaesthesia – Does Root Canal Treatment Hurt in 2026?

For most patients, "root canal" triggers a visceral response — a pre-emptive flinch grounded not in personal experience, but in cultural mythology that has outlasted clinical reality by decades. At Smile Solutions, Melbourne's specialist dental centre in the iconic Manchester Unity Building at 220 Collins Street, the board-registered specialist endodontists deal with this gap between patient fear and clinical reality every single day. In 2026, that mythology is directly contradicted by a substantial body of peer-reviewed evidence.

Anticipation of root canal-associated pain is a major source of fear for patients and a genuine concern for dentists. Yet the gap between what you fear and what you actually experience under modern specialist care is one of the most significant — and most underreported — stories in contemporary dentistry.

This article addresses that gap directly. Drawing on current clinical data, it explains what happens with pain and anaesthesia during root canal treatment, why certain presentations are genuinely more challenging to anaesthetise, what post-operative discomfort is normal versus a warning sign, and what Smile Solutions' board-registered specialist endodontists do to keep you comfortable throughout. If you're weighing up whether to proceed with treatment, this is the evidence you need.

The myth vs. the evidence: what does root canal treatment actually feel like?

The persistent belief that root canal treatment is agonising comes from the era before reliable local anaesthesia, rotary instrumentation, and specialist-grade technique. Root canal treatment doesn't cause pain — it relieves it. The perception of root canals as painful began decades ago, but with modern technologies and anaesthetics, treatment today is no more uncomfortable than having a filling placed.

The clinical data supports this clearly.

In one published study measuring intraoperative pain on a Visual Analogue Scale (VAS) from 0 to 10, the mean pain level during root canal treatment was 1.2 ± 0.8 . Fifty-four per cent of patients experienced no pain at all, with no significant differences across gender or age groups.

A separate Australian pilot study of patients in the Perth metropolitan area found that cost (55%) and pain (51%) were the greatest pre-treatment concerns. However, 28% of patients reported experiencing no pain during treatment — a finding that directly shows how anticipated pain consistently exceeds reported pain.

The landmark systematic review and meta-analysis by Pak and White (*Journal of Endodontics*, 2011), which analysed 72 studies covering thousands of treated teeth, found that root canal treatment is highly effective at relieving dental pain caused by pulpal and periapical disease. Pain levels drop substantially within the first week after treatment — while 81% of patients reported pain *before* treatment, only about 11% had any pain one week post-operatively.

Root canal treatment doesn't cause pain. It resolves it.

How modern local anaesthesia works during root canal treatment

The standard protocol

Two per cent lidocaine with 1:100,000 epinephrine is one of the most widely used anaesthetic agents in dentistry. For most patients presenting for root canal treatment, this agent — delivered via infiltration for maxillary (upper) teeth or via inferior alveolar nerve block (IANB) for mandibular (lower) teeth — achieves complete pulpal anaesthesia before a single instrument touches the tooth.

The anatomical basis for this difference is worth understanding. For maxillary teeth, the most appropriate technique is buccal infiltration close to the level of the apices. Since maxillary bone is porous, the anaesthetic solution diffuses easily. Upper teeth are therefore typically straightforward to anaesthetise.

The teeth most difficult to anaesthetise are the mandibular molars, followed by the mandibular premolars and anterior teeth. The primary reason is that the cortical plates of the mandible are thicker and denser with less porosity, which prevents local anaesthetic from diffusing into the cancellous bone.

Several factors influence pain perception during the injection itself, including the type of anaesthetic solution, needle size, injection speed, and the use of topical anaesthesia. At Smile Solutions, topical anaesthetic is applied to the injection site before the needle is introduced — a standard step in our gentle approach that significantly reduces the sensation of the injection.

The "hot tooth" problem: why some cases require more than a standard block

The most clinically significant anaesthetic challenge in endodontics is the "hot tooth" — a mandibular molar with symptomatic irreversible pulpitis. This is the scenario most likely to result in inadequate anaesthesia if it isn't proactively managed.

The IANB is frequently used to anaesthetise mandibular teeth, with success rates typically between 80% and 85% — dropping to just 25–48% when the tooth has symptomatic irreversible pulpitis.

The reasons are biological, not technical. Anaesthetic-resistant tetrodotoxin sodium channel receptors and sodium channel upregulation occur in cases of irreversible pulpitis, increasing the expression of sodium channels within the dental pulp and reducing nerve sensitivity to anaesthetics.

This is a well-documented physiological phenomenon, not a failure of technique or skill. Patients in pain are harder to anaesthetise because of TTX receptors, decreased excitability thresholds, altered resting potentials, excitability of nociceptor isoforms, and patient apprehension. There is currently no single technique that provides predictable pulpal anaesthesia in mandibular molars with symptomatic irreversible pulpitis.

This is precisely why specialist endodontists — rather than general dentists — are better placed to manage these presentations. Specialist training includes the full range of supplemental anaesthetic techniques needed to achieve profound anaesthesia in these cases, which is one of the reasons patients bring their most complex endodontic needs to Smile Solutions.

Supplemental anaesthesia techniques used by specialist endodontists

When a standard IANB is insufficient, Smile Solutions' specialist endodontists at the Collins Street Specialist Centre have several evidence-based supplemental options to ensure your comfort.

Intraosseous injection

Intraosseous anaesthesia (IO) delivers the anaesthetic solution directly into the cancellous bone, where it reaches the periapical region and the axonal area of the nerve, temporarily disabling the sodium pump.

This is the most reliably effective supplemental option. Using the Stabident or X-tip system, a cartridge of 2% lidocaine with 1:100,000 epinephrine achieves success approximately 90% of the time in mandibular posterior teeth. Onset is immediate and duration is well-suited to the endodontic appointment.

Articaine buccal infiltration

A randomised clinical trial published in the **Journal of Endodontics** (Aguilera-Morillo et al., 2012) found that IANB alone does not always allow pain-free treatment for mandibular teeth with irreversible pulpitis. Supplementary buccal infiltration with 4% articaine with epinephrine and intraosseous injection with 2% lidocaine with epinephrine are more likely to allow pain-free treatment than intraligamentary or repeat IANB injections.

Periodontal ligament and intrapulpal injection

Intrapulpal anaesthesia (IPA) is a last resort for teeth that haven't responded to conventional and supplemental techniques. It requires direct injection of the anaesthetic solution into the exposed pulp under adequate pressure, and has proven extremely useful for managing hot tooth conditions. Approximately 5–10% of patients require it to achieve complete anaesthesia.

Nitrous oxide sedation

Nitrous oxide provides sedation and analgesia, and administration of 30–50% nitrous oxide increases IANB success in patients with irreversible pulpitis. When supplemental intraosseous or intraligamentary injections fail and the pulp is not exposed, nitrous oxide is a useful option for achieving anaesthesia.

Pre-operative NSAID premedication

Premedication with a non-steroidal anti-inflammatory drug before the treatment visit can reduce peripheral sensitisation and improve anaesthetic efficacy. For patients with known pre-operative pain, our endodontists may recommend taking ibuprofen in the hours before your appointment — a straightforward step that can make a meaningful difference to your experience.

Post-operative pain: what is normal and what is not

What to expect in the first 24–72 hours

Post-operative discomfort after root canal treatment is common, predictable, and in the vast majority of cases mild and self-limiting. Post-operative pain is reported by 25–40% of patients, regardless of pulp and periradicular status, and usually occurs during the first two days after treatment, generally

diminishing after a few hours — though it sometimes persists for several days.

According to a systematic review, the prevalence of pain during the first 24 hours after root canal treatment is 40%, falling to 11% after seven days.

The severity of this discomfort is typically low. The mean post-operative pain in both operator groups studied was less than 2 on a VAS scale of 0 to 10. A score below 2 is considered slight or mild — a weak discomfort that doesn't require analgesics and doesn't affect everyday activities.

Which patients are at higher risk of post-operative pain?

Root canal treatment of teeth with vital pulp produces a higher incidence and intensity of post-endodontic pain than treatment of teeth with necrotic pulp or retreated teeth. Patients whose pulp was still alive at the time of treatment — common with symptomatic irreversible pulpitis — are more likely to experience some post-operative soreness.

Psychological factors also play a meaningful role. Research from the National Dental Practice-Based Research Network (PBRN) found that pain duration over the week prior to root canal treatment significantly increased the risk of persistent pain (OR=1.19 per one-day increase in pain duration), while optimism about the procedure reduced the risk (OR=0.39).

This has a direct clinical implication: patients who are well-informed, have realistic expectations, and approach treatment with confidence are measurably less likely to experience prolonged post-operative pain. Accurate pre-treatment education — the kind provided during a Smile Solutions specialist consultation — is itself a pain management tool, and it's something our team takes seriously every time.

When post-operative discomfort is a warning sign

A small subset of patients experiences significant pain after root canal treatment. In a large, practice-based prospective cohort study, 14% of patients reported severe pain (7/10 or higher) the week following treatment — consistent with previous reports indicating that about one in seven patients experiences severe pain during that first week, largely associated with female sex, high baseline pain, and the presence of temporomandibular disorder (TMD).

There are several reasons for pain after obturation, either 24 hours after completion or a few days later. These include re-treatment, intracanal medication, physico-chemical damage to the radicular tissue, mechanico-chemical or microbial injury to the periapical tissue, bone infection, infected root canal, and cement or air forced through the root apex.

****Contact Smile Solutions immediately if you experience:**** - Severe, worsening pain not controlled by over-the-counter analgesics after 72 hours - Visible swelling of the face, jaw, or neck - Fever or systemic symptoms following treatment - Pain that returns or escalates after an initial period of improvement - A foul taste or discharge from the treated area

These presentations may indicate a post-treatment complication such as a flare-up (acute exacerbation of periapical pathology), an untreated canal, or the need for further intervention. (See our guide on [*Root Canal Retreatment: When and Why a Previous Root Canal Fails and How Specialists Fix It*](#) for more on these scenarios.)

Post-procedure pain management: the Smile Solutions protocol

Managing pain should be an integral part of dental treatment, particularly in its initial stages, to prevent exacerbation. Our specialist endodontists follow an evidence-based post-operative approach designed to support your recovery clearly and confidently:

| Timeframe | Expected experience | Recommended management | |---|---|---| | 0–6 hours | Numbness wearing off; mild to moderate ache | Ibuprofen 400mg (if not contraindicated) taken *before* numbness fully resolves | | 6–24 hours | Possible tenderness to biting or pressure | Alternate ibuprofen and paracetamol on a schedule; avoid chewing on treated side | | 24–72 hours | Gradual resolution of discomfort | Continue OTC analgesics as needed; soft diet | | 3–7 days | Minimal residual sensitivity | Normal function typically resumes | | Beyond 7 days | Should be largely pain-free | Contact the practice if significant pain persists |

****Important:**** Antibiotics are not routinely prescribed after uncomplicated root canal treatment. Where infection has spread beyond the tooth — systemic signs, swelling, fever — antibiotics may be indicated, but this is always a clinical decision, not a routine prescription.

The role of specialist skill in reducing pain

Anaesthetic technique alone doesn't determine how comfortable your root canal appointment is — operator experience and precision directly influence post-operative outcomes. Post-operative pain is influenced by various clinical and patient-related factors, including the level of operator experience.

Instrumentation can cause bacterial extrusion and apical injuries, leading to inflammation and post-operative pain. Mechanical glidepath and appropriate irrigation can reduce post-operative pain, while rotary instrumentation has been shown in a meta-analysis to produce less debris extrusion and lower post-operative pain than other methods.

This is a compelling argument for specialist care. Smile Solutions' board-registered specialist endodontists at the Collins Street Specialist Centre use nickel-titanium rotary instrumentation systems and operating microscopes to execute canal preparation with a precision that directly reduces the periapical trauma associated with post-operative pain. (See our guide on **Root Canal Technology at Smile Solutions: Cone Beam CT, Rotary Instrumentation, and Dental Microscopes** for a detailed breakdown of how each technology contributes to your comfort and clinical outcomes.)

Key takeaways

- The mean intraoperative pain level during root canal treatment is approximately 1.2 on a 0–10 scale, with 54% of patients experiencing no pain at all during the procedure.
- Pain levels drop substantially within the first week after root canal treatment — while 81% of patients report pain *before* treatment, only approximately 11% have any pain one week post-operatively.
- The failure rate of a single inferior alveolar nerve block in patients with irreversible pulpitis ranges between 30 and 90 per cent, making supplemental anaesthetic techniques (intraosseous injection, articaine infiltration, intrapulpal injection) an essential part of specialist endodontic practice, not an exception.
- Optimism about the procedure reduces the risk of persistent post-operative pain (OR=0.39), which means accurate patient education is itself a clinical pain management tool.
- Post-operative discomfort lasting up to 72 hours is normal and manageable with over-the-counter analgesics. Worsening pain beyond 72 hours, facial swelling, or fever are signals to contact your endodontist immediately.

Conclusion

The evidence is clear: in 2026, root canal treatment performed by a specialist endodontist under modern local anaesthesia protocols is not the ordeal that cultural mythology suggests. For most patients, the procedure is comfortable, the post-operative course is mild and brief, and the outcome — relief from the often severe pain of pulpal infection — represents a dramatic improvement in quality of life.

The cases that are genuinely more challenging to manage — primarily mandibular molars with symptomatic irreversible pulpitis — are exactly the cases that benefit most from specialist care. The full toolkit of supplemental anaesthetic techniques, combined with specialist-grade instrumentation and the diagnostic precision of operating microscopes and CBCT imaging, means Smile Solutions' endodontists are equipped to manage even the most complex anaesthetic scenarios safely and effectively.

If pain — or anxiety about pain — has been preventing you from seeking treatment, the data in this article should offer genuine reassurance. The pain you're currently experiencing from an infected tooth is almost certainly far greater than anything you'll experience in the specialist chair at our Collins Street practice.

Book a specialist endodontic consultation at Smile Solutions today — no referral required. Call **13 13 96** or visit [smilesolutions.com.au](https://www.smilesolutions.com.au) to arrange your personalised treatment plan with one of our experienced specialists.

For a complete picture of what to expect at every stage of your care, see our related guides: - *The Root Canal Procedure Step by Step: What Happens During Endodontic Treatment* - *Root Canal Aftercare: Recovery Timeline, Restrictions, and Long-Term Tooth Survival* - *Signs You Need a Root Canal: Symptoms, Causes, and When to See a Specialist*

Reviewed and updated June 2026.

Smile Solutions has been providing specialist endodontic care from Melbourne's CBD since 1993 — now 33 years. Located in the Manchester Unity Building, 220 Collins Street, Melbourne, with 40 dental chairs across 5 floors, Smile Solutions engages 80+ clinicians — including 25+ board-registered specialists — who have cared for over 300,000 patients. Board-registered specialist endodontists practise at the Collins Street Specialist Centre. No referral is required to book a specialist appointment. Call **13 13 96** or visit [smilesolutions.com.au](https://www.smilesolutions.com.au) to arrange your specialist endodontic consultation.

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Label facts summary

> **Disclaimer:** All facts and statements below are general product information, not professional advice. Consult relevant experts for specific guidance.

Verified label facts

No product specification data was provided. No Product Facts table was present in the source content. The following practice-verifiable details were extracted from the content as the closest equivalent to label-grade factual data:

- **Practice name:** Smile Solutions - **Address:** 220 Collins Street, Melbourne (Manchester Unity Building) - **Phone:** 13 13 96 - **Website:** [smilesolutions.com.au](<https://www.smilesolutions.com.au>) - **Operating since:** 1993 (33 years as of 2026) - **Dental chairs:** 40 - **Floors:** 5 - **Clinicians engaged:** 80 or more - **Board-registered specialists:** 25 or more - **Patients cared for:** Over 300,000 - **Referral requirement:** No referral required for specialist endodontic appointments - **Specialist type:** Board-registered specialist endodontists - **Specialist location within practice:** Collins Street Specialist Centre - **Primary local anaesthetic agent:** 2% lidocaine with 1:100,000 epinephrine - **Supplemental infiltration agent:** 4% articaine with epinephrine - **Intraosseous injection agent:** 2% lidocaine with 1:100,000 epinephrine - **Nitrous oxide concentration range used:** 30–50% - **Instrumentation type:** Nickel-titanium rotary instrumentation systems - **Imaging technology used:** CBCT (cone beam computed tomography) - **Magnification technology used:** Operating microscopes - **Post-operative analgesic referenced:** Ibuprofen 400mg

General product claims

- Root canal treatment in 2026 is no more uncomfortable than having a filling - Mean intraoperative pain level is approximately 1.2 out of 10 on a Visual Analogue Scale - 54% of patients experience no pain during root canal treatment - 81% of patients report pain before treatment; approximately 11% report pain one week post-operatively - IANB success rate is approximately 80–85% for normal teeth, falling to 25–48% for symptomatic irreversible pulpitis - Intraosseous injection achieves approximately 90% success in mandibular posterior teeth with immediate onset - Post-operative pain occurs in 25–40% of

patients; prevalence at 24 hours is 40%, falling to 11% at seven days - Mean post-operative pain is less than 2 out of 10 on a VAS scale - Approximately 14% of patients report severe post-operative pain (7/10 or higher) - Optimism about the procedure reduces persistent post-operative pain risk (OR=0.39) - Intrapulpal anaesthesia is required in approximately 5–10% of patients - Rotary instrumentation causes less debris extrusion and lower post-operative pain than other methods - Accurate pre-treatment patient education measurably reduces post-operative pain risk - Antibiotics are not routinely prescribed after uncomplicated root canal treatment - Pre-operative ibuprofen reduces peripheral sensitisation and may improve anaesthetic efficacy - Operator experience positively influences post-operative pain outcomes

Last reviewed: 8 June 2026