Why MBR Health on the Gold Coast Is One of Australia's Most Advanced Precision Spine and Back Pain Clinics

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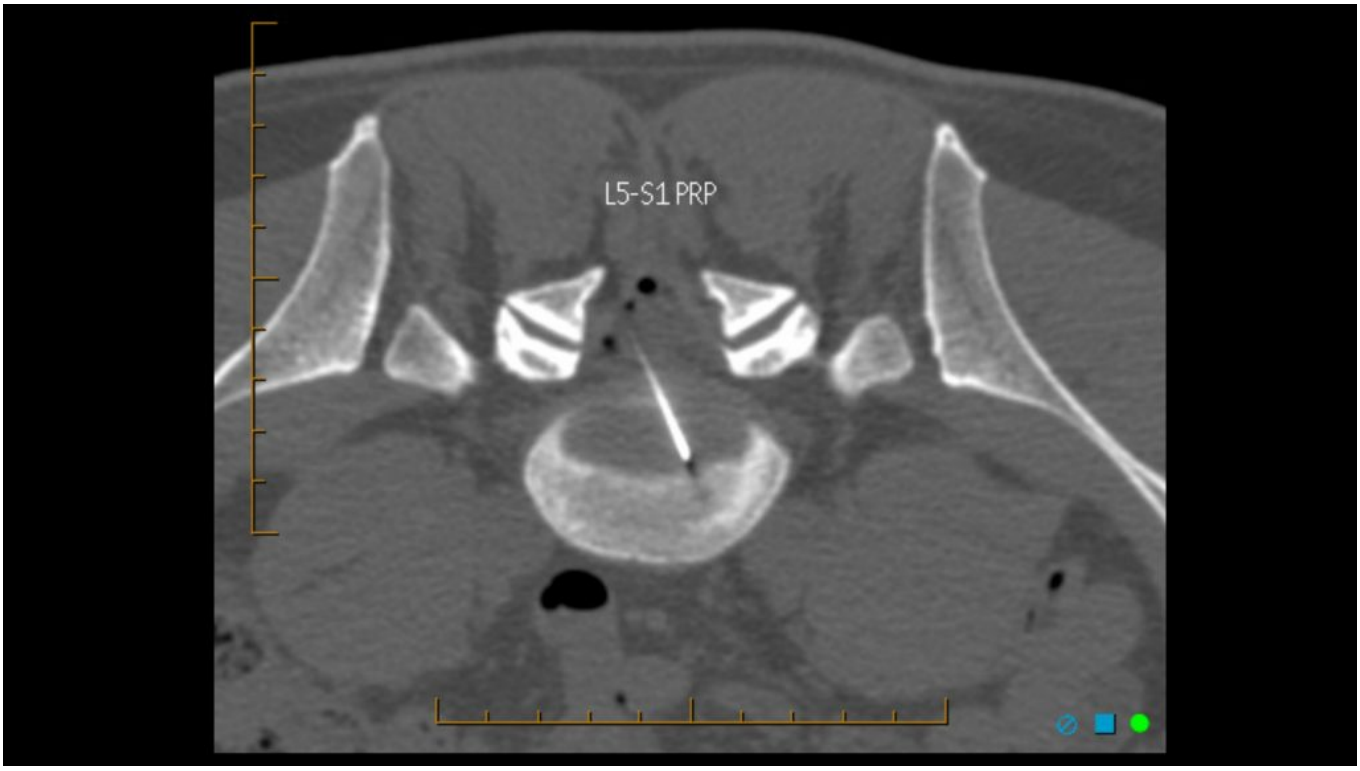

Advanced spinal diagnosis. Precision image-guided treatment. One integrated pathway.

Back pain is not a single diagnosis. It may arise from an intervertebral disc, facet joint, nerve root, ligament, sacroiliac joint, vertebral endplate, muscle – or several structures at once. An abnormality on a scan is not necessarily the structure causing pain, and treating the wrong is unlikely to produce the right result.

This is why MBR Health has built a specialist spine pathway around a simple principle: **the quality of back pain treatment depends on the quality of the diagnosis, the accuracy of the and the precision of treatment delivery.**

At our independent Gold Coast clinic, advanced 3T MRI, nerve-focused MRI, AI-assisted image reconstruction, detector-based spectral CT and specialist image-guided intervention are brought together in one radiologist-led pathway. When appropriate, patients can access both conventional pain-relieving procedures and advanced regenerative options, including ultra-high dose platelet-rich plasma (PRP), rather than being directed automatically towards a single treatment.

The aim is not merely to perform a scan or an injection. It is to understand **which structure is abnormal, whether it plausibly explains the patient's symptoms, and what treatment strategy is most appropriate for that individual.**

Why a standard spine MRI may not provide the whole answer

MRI is usually the most comprehensive imaging test for persistent back pain, sciatica and many spinal conditions because it can assess the discs, nerves, spinal canal, bone marrow, facet joints and surrounding soft tissues without ionising radiation.

However, "having an MRI" does not describe a single uniform examination. Diagnostic quality depends on the scanner, field strength, coil, sequences, spatial resolution, scan time, artefact control, protocol design and the experience of the radiologist interpreting the study.

Routine lumbar spine MRI is often designed primarily to show anatomy: disc height, disc protrusion, spinal canal narrowing and nerve-root compression. These findings offer value, but anatomy alone may not always identify the active pain generator. Degenerative changes are common, including in people without pain. A meaningful report must therefore interpret the imaging in the context of the patient's symptoms – not simply list every abnormality.

MBR Health uses a research-grade Philips 3T MRI platform and develops specialised in-house protocols intended to extract more clinically useful information than a basic, high-throughput spine study. Depending on the clinical question, the examination may include:

- high-resolution anatomical imaging of the discs, facet joints, neural foramina and spinal canal which can now be performed with 3D aquisition techniques exclusive to MBR Health;
- fluid-sensitive and fat-suppressed sequences that may reveal oedema or inflammatory change within bone marrow and soft tissues;
- thin-slice three-dimensional imaging that can be reformatted in different planes;

- advanced nerve-selective imaging, including MRI NerveVIEW, where clinically appropriate;
- advanced MR discography, and
- AI-assisted reconstruction designed to improve image quality and support high-resolution imaging within a practical examination time.

Philips describes 3D NerveVIEW as a high-resolution, nerve-selective T2-weighted technique designed to improve visualisation of the brachial and lumbar plexus, with isotropic imaging that can be reformatted in multiple planes.[1]

These tools do not make every scan abnormal, nor can imaging alone explain every case of back pain. Their value is that they give the radiologist more information with which to distinguish an incidental age-related finding from a potentially active or clinically relevant target.

Read more: Spine MRI: Discs, Nerves, Facet Joints and the Spinal Canal and How to Diagnose Back Pain Properly: When to Wait, When to Scan, and Why MRI Matters.

A radiologist with a genuine specialist interest in the spine

Technology is only useful when the person planning the scan, interpreting the findings and performing the treatment understands the clinical problem.

MBR Health's spinal imaging and interventional service is led by Dr Zane Sherif, a specialist radiologist whose particular areas of interest include spinal imaging, back and neck pain, image-guided spinal procedures and regenerative medicine.

Before radiology training, Dr Sherif completed three years of dedicated orthopaedic training with exposure to spinal surgery. This combination of experience is crucial. It brings together an understanding of spinal anatomy, surgical decision-making, advanced diagnostic imaging and minimally invasive image-guided treatment.

The same specialist can review the imaging, identify the most plausible pain generator, plan the safest route to the and perform the procedure. This continuity reduces the separation that can otherwise occur between the scan, the report and the intervention.

Spectral CT: precision beyond a conventional planning scan

CT guidance is particularly valuable when a is deep, very small, close to a nerve or vessel, partly hidden by bone, or altered by surgery or advanced degeneration. Cross-sectional imaging allows the radiologist to plan the needle pathway rather than relying on surface landmarks.

MBR Health uses an advanced detector-based Philips Spectral CT system. Unlike conventional CT, detector-based spectral CT captures energy-dependent information during every scan, allowing additional tissue characterisation and material-specific reconstructions from a single acquisition. Philips reports that spectral CT can distinguish materials that may appear similar on conventional CT.[2]

For spinal intervention, the practical advantage is not a marketing number such as the number of "slices." What matters is the complete interventional environment: image quality, anatomical visibility, low-dose planning, metal artefact management where required, workflow, specialist procedural software and the radiologist's ability to place a needle accurately at the intended target.

MBR Health's CT platform includes dedicated interventional capabilities and AI-optimised reconstruction. These technologies support clear planning images and precise, stepwise needle placement for selected procedures, including:

- lumbar, thoracic and cervical nerve-root injections;

- epidural injections for radicular pain and sciatica;
- facet-joint and medial-branch procedures;
- sacroiliac-joint injections;
- targeted ligament and enthesis procedures;
- intradiscal treatment in carefully selected patients; and
- other complex spinal and per spinal targets where CT is the most appropriate guidance method.

No guidance technology removes procedural risk, and no injection is appropriate for every patient. The advantage is the ability to choose the best imaging modality for the and document where treatment has been delivered.

Read more: CT-Guided Spine Injections: What Patients Should Know, CT Guidance or Ultrasound Guidance: Why the Modality Matters and Specialist Image-Guided Injections: Why Imaging Guidance Matters.

Back pain treatment should match the purpose of treatment

An injection is not a diagnosis, and not all injections are intended to achieve the same thing.

Local anaesthetic: diagnostic information and temporary relief

A carefully targeted local anaesthetic injection may help determine whether a particular joint, nerve or structure is contributing to pain. This can be valuable when imaging shows more than one possible pain source.

Corticosteroid: reducing inflammation and creating a window for recovery

Cortisone can reduce inflammation and may provide meaningful relief for appropriately selected patients. It can also be useful when short-term symptom control allows movement, sleep and rehabilitation, or when a response may provide diagnostic information.

However, cortisone is not a regenerative treatment. If pain repeatedly returns because the underlying tissue remains injured or mechanically compromised, simply repeating symptom suppression may not be the complete answer.

PRP and regenerative treatment: supporting repair in selected tissues

PRP is prepared from the patient's own blood and concentrates platelets and their signalling molecules. In selected spinal conditions, it may be considered for carefully defined targets such as facet joints, supporting ligaments, entheses or discs.

The evidence for spinal PRP is evolving and differs by condition and target. It should not be presented as a guaranteed cure or as a replacement for surgery when urgent surgical treatment is required. Its responsible use depends on patient selection, a defensible anatomical target, a transparent platelet dose, sterile preparation, precision image guidance and a recovery plan that respects the biology of tissue healing.

MBR Health's regenerative spine service is distinguished by its integration with advanced imaging. The treatment is not selected first and then applied to a symptom. Imaging and clinical correlation are used to determine whether there is a plausible tissue target, which biologic preparation may be appropriate, how it can be delivered most safely and how recovery should be staged.

Read more: Treating Spinal Pain: A Precision Framework for PRP and Biologic Spine Treatments, CT-Guided Epidural Injections for Sciatica: Cortisone, PRP, Recovery and Choosing the Right Treatment and How Do You Heal Better After PRP?.

A complete precision spine pathway on the Gold Coast

Many services provide one part of the back pain journey. A radiology provider may perform the requested scan. A pain clinic may offer an injection. A regenerative clinic may offer PRP. A surgeon may assess whether an operation is required.

MBR Health's point of difference is the integration of these stages:

1. **Define the clinical problem.** Where is the pain? Does it radiate? Is there weakness, numbness, trauma, fever, cancer history or another warning feature?
2. **Select the most informative examination.** This may be advanced 3T MRI, MRI nerve imaging, spectral CT, X-ray or a combination – not simply the test a clinic happens to offer.
3. **Diagnose and triage the pain generators.** Imaging findings are correlated with the symptom pattern rather than treated as a list of unrelated abnormalities.

4. **Choose the purpose of treatment.** Is the procedure diagnostic, intended to reduce inflammation, designed to provide a rehabilitation window, or intended to support tissue repair?
5. **Deliver treatment under the most appropriate image guidance.** CT, ultrasound or a combination in highly complex procedures may be selected according to the anatomy and target.
6. **Plan recovery and reassessment.** A successful procedure is not merely a technically accurate injection. The response, rehabilitation and next decision also matter.

This is what precision spine care means at MBR Health: better information before treatment, a more defensible target, precise delivery and a clear plan after the procedure.

When should back pain be assessed urgently?

Most back pain is not an emergency. Urgent medical assessment is important, however, when back or neck pain is associated with progressive limb weakness, new bladder or bowel dysfunction, numbness around the saddle region, fever or systemic illness, significant trauma, known cancer, unexplained weight loss, severe unremitting night pain or other rapidly worsening neurological symptoms.

Imaging should also not be performed simply because technology is available. For uncomplicated acute low back pain without warning features, immediate imaging may not be necessary. The decision to scan should be based on the clinical circumstances, duration of symptoms, examination and whether the result is likely to change management.

Why patients travel to MBR Health for spinal imaging and back pain treatment

Patients from the Gold Coast, Brisbane, regional Queensland, interstate and overseas seek MBR Health when they want more than a routine scan or a generic injection pathway.

They are looking for:

- advanced 3T spine MRI and specialised nerve imaging;
- assessment of both structural anatomy and potentially active inflammatory change;
- specialist interpretation by a radiologist with prior orthopaedic and spinal surgical experience;
- detector–based spectral CT with dedicated interventional capability;
- precise CT–guided spinal injections for back pain, neck pain and sciatica;
- access to both conventional and regenerative treatment options;

- high-dose, transparently measured PRP where clinically appropriate; and
- one integrated diagnostic, interventional and follow-up pathway.

Advanced medicine is not defined by one scanner, one sequence, one injection or one claim. It is defined by how effectively expertise, technology, biology and precision are combined for the individual patient.

That integrated approach is why MBR Health has developed one of Australia's most advanced radiologist-led pathways for spinal diagnosis and non-surgical back pain treatment – delivered from a specialist radiologist owned independent clinic on the Gold Coast.

Frequently asked questions

What is the best scan for ongoing back pain?

For persistent back pain, sciatica or suspected nerve compression, MRI is often the most comprehensive first examination because it assesses discs, nerves, the spinal canal, bone marrow, facet joints and soft tissues without ionising radiation. CT may be added when fine bone detail, spectral information, postoperative anatomy or procedural planning is important. The appropriate test depends on the clinical question.

Is every spine MRI the same?

No. MRI quality varies with field strength, coils, sequences, spatial resolution, scan time, motion control, protocol design and specialist interpretation. A high-quality examination should be tailored to the suspected condition rather than limited to a generic protocol.

Can MRI show inflammation in the spine?

MRI cannot measure every aspect of inflammation, but fluid-sensitive and fat-suppressed sequences can reveal patterns such as bone-marrow oedema and inflammatory change in selected tissues. These findings must be interpreted with the patient's symptoms, examination and other imaging.

Does MBR Health perform CT-guided spinal injections on the Gold Coast?

Yes. MBR Health performs selected CT-guided procedures for back pain, neck pain and sciatica, including epidural, nerve-root, facet-joint, medial-branch and sacroiliac-joint procedures. The appropriate procedure and injected substance depend on the diagnosis, referral and individual clinical circumstances.

Is PRP better than cortisone for back pain?

They have different purposes. Cortisone aims primarily to reduce inflammation and pain. PRP aims to influence the local biological healing environment. Neither is universally better, and the evidence varies by and condition. The most appropriate option depends on the diagnosis, urgency, tissue involved, treatment objective and patient factors.

Do I need a referral?

A referral is required to claim any applicable Medicare rebate and should identify the requested examination or procedure and relevant clinical indication. If a patient cannot obtain a referral they should call the clinic to discuss their options.

Book advanced spinal imaging or a back pain procedure on the Gold Coast

If you have persistent back pain, neck pain, sciatica, an uncertain spinal diagnosis or pain that has returned after previous treatment, MBR Health can review the clinical question and help determine the most appropriate imaging or image-guided pathway.

Contact MBR Health **to discuss your referral or book an appointment. All referrals are accepted.**

This article provides general information and does not replace individual medical advice. Imaging and interventional procedures have limitations and risks. Treatment suitability can only be determined after review of the patient's history, referral, examination where required and relevant imaging.

Related articles

- How to Diagnose Back Pain Properly: When to Wait, When to Scan, and Why MRI Matters
- Spine MRI: Discs, Nerves, Facet Joints and the Spinal Canal
- Treating Spinal Pain: A Precision Framework for PRP and Biologic Spine Treatments
- CT-Guided Spine Injections: What Patients Should Know
- CT-Guided Epidural Injections for Sciatica: Cortisone, PRP, Recovery and Choosing the Right Treatment
- CT Guidance or Ultrasound Guidance: Why the Modality Matters

- How Do You Heal Better After PRP? The Cellular Phases of Repair and Why Recovery Protocols Matter
- Dr Zane Sherif: Specialist Radiologist in Spinal Imaging, Intervention and Whole-Body MRI

References

1. Philips. 3D NerveVIEW MR clinical application. Accessed 20 September 2026.

2. Philips. Detector-based spectral CT and diagnostic precision. Accessed 20 September 2026.

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