REVIVE ORTHO
AND SPINE CENTRE

Centre for endoscopic and minimal invasive spine surgeries

(Doctor treats, God heals)



SPINE SURGERY BOOKLET

The best

ORTHOPEDIC AND SPINE CENTRE

FOUND EVER

We always provide intensive care for your health



OUR SERVICES

- Endoscopic spine surgeries
- Minimal invasive spine surgeries
- Total knee, hip & shoulder replacement surgeries
- Simple & complex pain management procedures
- Shoulder replacement surgeries
- Robotic spine surgeries
- Scoliosis corrections

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Revive Ortho and Spine Centre, Nairobi

Because you matter, we care!!!!

FROM THE CEO'S DESK

Message from the CEO's Desk

At Revive Ortho and Spine Centre, we believe that successful orthopedic outcomes depend on more than a successful operation. They require the management of the whole person.

Our clinical team looks beyond the bone and spine to address each patient's overall health and long-term vitality, so that medical precision always meets a seamless patient experience.

Alongside Dr. Ritesh Patel, our two founders share one standard of care: conservative, patient-first treatment, with surgery kept as a precision intervention for cases where neurological integrity or quality of life is at risk.

Our mission is to deliver world-class spine care at affordable costs, with a relentless emphasis on quality and safety in every treatment.

Dr. Priyanka Patel

FOUNDER DIRECTOR & CEO

Revive Ortho and Spine Centre



DR. PRIYANKA PATEL
Founder Director & CEO

> *At Revive, our leadership is committed to a standard of care where medical precision meets a seamless patient experience. We don't just manage conditions; we manage lives.*
>
> **— DR. PRIYANKA PATEL**

Because you matter, we care!!!!

01 · THE SURGEON

Dr. Ritesh G. Patel

SENIOR FELLOW: EURO SPINE, NASS, APSS, APOA



- Founder Director & Chairman
- Consultant Orthopedic & Spine Surgeon
- Specialist in Endoscopic & Minimal Invasive Spine Surgeries
- MBBS, FCPS orthopedic
- Spine Fellow (India & Germany)
- Contact: +254 759 783 272 / +254 707 417 221 / +254 707 416 718

- Diploma in Orthopedics
- Fellowship Spine surgery (SCAPL).
- Fellowship training in Basic & Advanced Endoscopic spine surgery (Sangli, Maharashtra).
- Fellowship pain medicine (Apollo, Hyderabad) FCPS (Mumbai).
- EDISC – EUROSPINE Interprofessional Spine Care

MY ACHIEVEMENT RESULTS

8,500 Surgical procedures	**4,000** Spine surgeries	**1,500** Endoscopic spine surgeries	**2,000** Hip, knee & shoulder replacements

20,000 Transforaminal Nerve Blocks	**8,000** RF Ablation	**3,000** Trigeminal Neuralgia	**500** Vertebroplasty

100 Spinal Cord Stimulation	**50** Intrathecal Pump	**50** Endoscopic Cervical Discectomy

Membership and Awards

- Gujarat Orthopaedic Association
- Indian Orthopaedic Association
- Indian Spinal Surgeon Association
- Kenyan Orthopaedic Association
- Indian Medical Association
- Kenyan Medical Association
- SICOT International Orthopaedic Association
- Senior fellow of Eurospine spine surgery society
- Senior fellow for North America spine society
- Senior fellow for Asia Pacific spine society
- Senior fellow for Asia Pacific orthopaedic Association

01 · THE SURGEON

Dr. Ritesh G. Patel

Present Designation

- Founder Director and chairperson of Revive Orthopedic and spine centre
- Former Director of spine and speciality hospital "spine clinic africa limited"
- Consultant orthopaedic and spine surgeon at spine and speciality Hospital, Nairobi
- Consultant orthopaedic and spine surgeon at Pushya hospital, Ahmedabad, Gujarat, India · Diploma in orthopaedics, FCPS, FIPM, FISS (India & Germany)
- Former Consultant orthopaedic and spine surgeon at Apollo hospital, Ahmedabad, Gujarat, India

Medical Licensure

- Registered with Gujarat Medical Council state branch of Indian Medical Council
- Unrestricted licence to practice anywhere in India (Family Physician) No. G-50049
- Registered with Maharashtra medical Council Branch of Indian Medical Council No. 2014/12/4908 (orthopaedic surgeon)
- Registered with Kenya Medical and dentist practitioner board
- Registered as orthopaedic specialist surgeon, senior consultant at Lusaka, Zambia
- Orthopaedic specialist surgeon, senior consultant at Kigali Rwanda
- Registered with Lesotho medical board as orthopaedic and spine surgeon

Courses and Workshops Attended

- Advanced Spinal Cord Injury Management Endoscopic Spine Surgery & Pain Management
- MISSICON 2014 - Workshop & Training
- Fortis Hospital Workshop on Intervention Pain Management, New Delhi, 2014
- Deformity Correction Training, Scoliosis Research Society, 2017
- Endoscopic Spine Surgery Webinar, 2018
- SICOT International Conference: Oman, 2019
- Asia Pacific Orthopedic Conference Kuala Lumpur, 2020, 2022
- Kenya Orthopaedic Association Speaker, 2018, 2020, 2021, and Cairo

Areas of Interest in Spinal Surgeries

- Interventional Pain procedures
- MISS (Minimally Invasive Spine Surgery) Endoscopic Disc Surgery under Local Anaesthesia
- Deformity correction, Spondylolisthesis surgery
- Decompression surgery (Cervical, Lumbar)
- Scoliosis Correction via minimally invasive Techniques
- Disc replacement procedures
- Courses and Workshops attended

01 · THE SURGEON

Our Goals

- Identify a patient's medical condition and provide the most appropriate and effective treatment plan.
- Prioritize the individual patient's needs, preferences, and values in all care decisions.
- Promoting Health and Preventing Disease
- Alleviating Suffering and Improving Quality of Life
- Clear Communication and Informed Consent ensuring patients can make free and informed decisions.
- Building Trust and a Therapeutic Relationship for effective patient care.
- Identify and treat source of pain or issues
- Adhering to ethical principles such as beneficence (acting for the patient's benefit)

Because you matter, we care!!!!

Doctor treats, God heals.

02 · OUR SERVICES

Because you matter, we care!!!!

Our services:

Radiofrequency Ablation

A radiofrequency ablation is a minimally invasive manner that destroys the nerve fibers carrying ache indicators to the mind. It is able to provide lasting remedy for patients with chronic pain, especially within the lower back, neck and arthritic joints. If you go through recurrent pain and also you've skilled right relief with a nerve block injection, then you will be a candidate for a radiofrequency ablation.





Scoliosis Correction Surgery

Scoliosis surgery repairs abnormal curving of the spine (scoliosis). The goal is to safely straighten your child's spine and align your child's shoulders and hips to correct your child's back problem. This condition can cause pain and stiffness in the back, fatigue and muscle strain, and pain or numbness in the legs from pinched nerves. Some people may also have outward signs of scoliosis, such as one shoulder blade appearing larger than the other, hips that don't appear even, or ribs that extend out farther on one side.

Complex Hip and Knee Replacement Surgery

Complex hip and knee replacement allows many people to resume the activities and hobbies they had once loved, like biking, hiking, swimming and golf, before the pain sidelined them. The main reason people have this type of surgery is to no longer suffer from chronic and excruciating pain. Restores movement and activity and most importantly it's less painful.

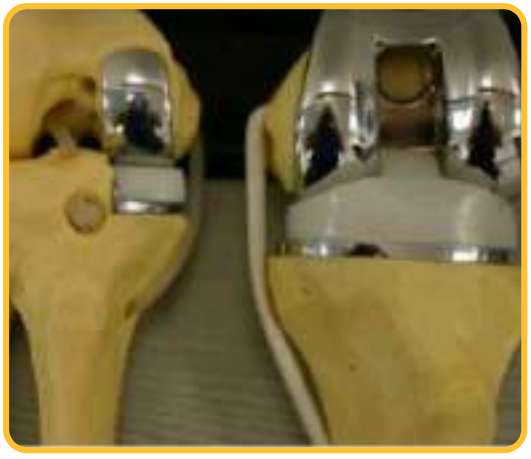


Robotic Spine Surgery

Robotic spine surgery is a form of minimally invasive spine surgery. If you are experiencing chronic back pain that is unresponsive to non-surgical treatment, you may be a candidate for minimally invasive spine surgery in conjunction with the ExcelsiusGPS spinal surgery system.

ExcelsiusGPS is designed to improve accuracy and optimize patient care by using robotics and navigation, much like a GPS in your car. Its potential benefits for patients include a shorter hospital stay, less tissue damage, and smaller incisions (which may lead to smaller scars).





Micro plasty knee operation

Microplasty knee replacements operation is a procedure meant to mitigate chronic knee pain due to arthritis. These surgeries require putting in place prosthetic knee joint components by first cutting off the bone and soft tissue.

Shoulder replacement surgery

Your shoulder is an important joint that rotates with a greater range of motion than any other joint in your body. If it's causing you pain to the point that you can't reach into a cabinet, can't sleep well, or experience other symptoms, your healthcare provider might consider replacement surgery. This procedure can relieve your pain and increase mobility.





Day care Surgery

Daycare Surgery is the modern type of surgery where the patient usually undergoes surgery in the morning and can be discharged on the same day in less than 24 hours. If the patient is admitted in the morning and undergoes the surgery, they can be discharged in the evening.

Physiotherapy and Rehabilitation

Pain is the primary reason people seek healthcare. Untreated pain can lead to depression, sleeping disorders, immune suppression, cognitive impairment and other negative effects, and it affects your relationships with friends, work colleagues and family. Physiotherapy is the best for long term chronic pain management. Let us help you with any physiotherapy need, be it low back pain, stroke, body weakness, joint pain, or spinal cord and brain injury conditions.





Facet Joint Block & Medial Branch Radiofrequency

Facet joints are located on the sides of your spine, away from the spinal cord. Facet joints may be the only cause of your back and neck pain. If we suspect that your neck or lower back pain may be caused in part by the small facet joints of the spine, diagnostic injections are done under live X-ray guidance. If your pain is relieved, we can offer long lasting pain relief with radiofrequency treatment.

03 · DIAGNOSIS & PAIN RELIEF

Provocative Discography

MRI, stress MRI and contrast enhanced MRI may not always be conclusive in many patients with low back pain.

Provocative discography is required.

By injecting contrast dye into an intervertebral disc and measuring intradiscal pressure, this IITV guided procedure can help us diagnose various disc-related pains. After provocative discography, result-specific treatment can be planned depending upon the discography findings.

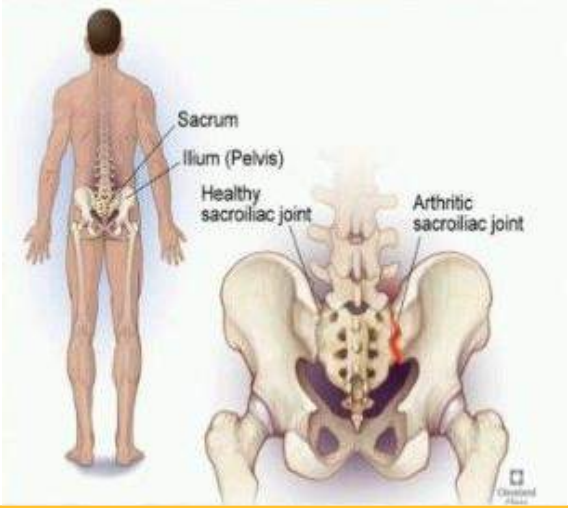


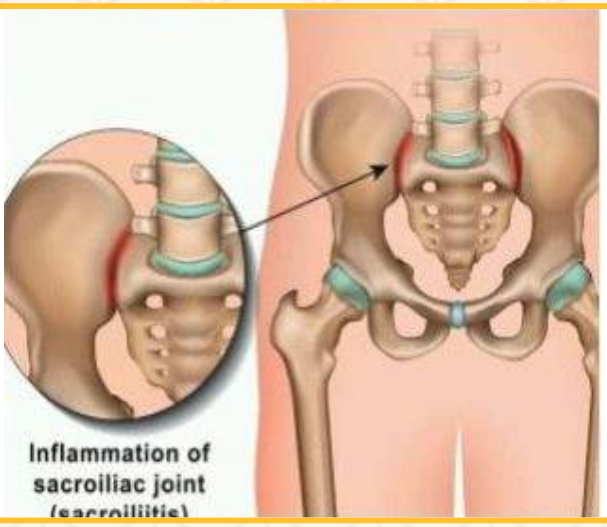
Sacro-iliac Joint Pain

One of the most common causes of pain in the buttock area.

IITV guided SI joint injection is the gold standard in diagnosis and treatment of sacro-iliac joint pain. RF ablation can provide long relief for SI joint pain.

Corner loc is the latest way for SI joint fusion.





04 · ENDOSCOPIC SPINE SURGERY

STITCHLESS Percutaneous Endoscopic Discectomy under local anesthesia (cervical/thoracic/lumbar)

SED - Selective Endoscopic Discectomy: (thoracic/lumbar)

A minimally invasive spine endoscopy technique that utilises an endoscope to treat herniated, protruded, extruded, or degenerative discs that are a contributing factor to leg and back pain.

The endoscope allows the doctor to use a 'keyhole' incision to access the herniated disc. Muscle and tissue are dilated rather than being cut when accessing the disc. This leads to less tissue destruction, less post-operative pain, quicker recovery times, earlier rehabilitation, and avoidance of general anesthesia.

The excellent visualization via the endoscope permits the doctor to selectively remove a portion of the herniated disc that is contributing to the patient's leg and back pain. The procedure is performed in an outpatient setting.

The patient is awake throughout the procedure, so valuable feedback can be obtained from the patient and there is no chance of major neurological damage, even by mistake. A radiofrequency probe/electrocautery also helps depopulate and ablate the pain fibers in the annulus.

In case of major spinal stenosis, side firing holmium laser, endoscopic burr and trephines are very helpful. As the procedure is under local anaesthesia with a very small incision, the patient can be mobile after the procedure. No hospitalisation is needed in most patients.







05 · PATIENT QUESTIONS

Frequently Asked Questions

What are the methods to treat Sciatica by operations

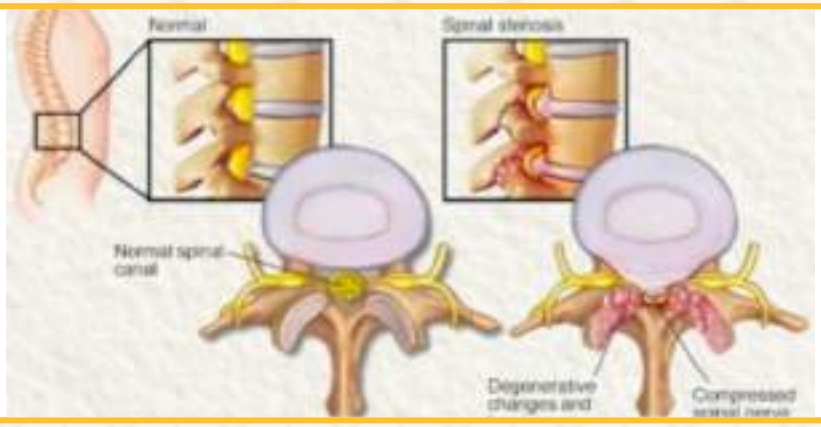
1. Conventional Open Discectomy
2. Micro Discectomy/Micro Endoscopic discectomy
3. Selective Endoscopic Discectomy (stitchless)

Indicators

- Spinal stenosis canal
- Discogenic low back pain
- Discitis
- Pain slip disc/Sciatica
- Spondylolisthesis
- Pain after spine surgery

Spinal Canal Stenosis.

A narrowing of the spinal canal. Spinal stenosis can put pressure on the spinal cord and the nerves within the spine; it commonly occurs in the neck and lower back. The condition is often caused by age related wear and tear.



How is selective endoscopic discectomy superior to other surgical techniques

- Smaller incisions
- Less tissue damage
- Reduced blood loss
- Access from different angles
- Faster recovery and reduced postoperative pain
- Quicker recovery due to less tissue trauma
- Less postoperative pain
- Shorter hospital stay
- Avoidance of general anesthesia and fusion
- Similar outcomes to microdiscectomy
- Treatment of various disc herniation

06 · KNOW THE STAGES

Complaints

- **Initial stages:** Person can have no symptoms, but people may experience pain in the neck or back, arm or leg, or legs, thighs and buttocks that worsens with standing and walking.
- **Advanced stages:** Abnormality in walking, cramping, or muscle weakness, leg numbness, pins and needles or reduced sensation of touch.
- **Emergency stage:** If you feel unsteady and/or can't stand or walk due to severe spinal compression, emergency decompression is required.

What are the problems with Surgery:

- **Delayed union or non-union:** The fractured bone may take longer than expected to heal (delayed union) or may fail to heal completely (non-union). This can require further surgery.
- **Malunion:** The bone may heal in an incorrect or misaligned position, potentially causing functional problems or requiring corrective surgery.
- **Implant-related issues:** If implants like plates, screws, rods, or joint replacements are used, they can sometimes loosen, break, cause irritation, or become infected, necessitating revision surgery.
- **Avascular necrosis:** Disruption of blood supply to the bone during surgery can lead to bone death.
- **Stiffness and reduced range of motion:** Surgery and the healing process can sometimes result in stiffness in the affected joint or limb.
- **Chronic pain:** Some patients may experience persistent pain even after the bone has healed.
- **Bone infection (osteomyelitis):** This is a serious complication that can be difficult to treat and may require long-term antibiotics and potentially further surgery.
- **Fat embolism:** Fat particles released from the bone marrow during a fracture or surgery can travel to the lungs, causing a serious condition.
- **Compartment syndrome:** Swelling and increased pressure in a muscle compartment can compromise blood flow and nerve function, requiring urgent surgical release.

Treatment:

Depends on the location of the stenosis and the severity of your signs and symptoms.

If your symptoms are mild or you aren't experiencing any, your doctor may monitor your condition with regular follow-up appointments. He or she may offer some self-care tips that you can do at home. If these don't help, he or she may recommend medication, physical therapy or epidural injections.

Surgery may be an option if other treatments haven't helped.

07 · ADVANCED TECHNIQUE

Minimal invasive Endoscopic spine Techniques

The most recent and advanced technique is done by using a special endoscope, live x-ray system and camera system.







By directing visualization, lamina bone, overgrown joints, bony spur and yellow ligaments can be removed by high speed burr, radio frequency probes and specially designed instruments in a way that reduces the damage to nearby healthy tissue.

This results in less need to do spinal fixation with screws and implants (fusion surgery). While fusion is a useful way to stabilize the spine and reduce pain, by avoiding it you can reduce potential risks, such as post-surgical pain and inflammation, disease in nearby sections of the spine and a shorter recovery time.

It also avoids complications related to anaesthesia and can be done under local or epidural anaesthesia. In some cases of dynamic spinal instability, fusion is required. Percutaneous screw placement under live x-ray guidance with or without fusion is the latest technique for such selected cases.





08 · PROCEDURES



STITCHLESS Percutaneous Endoscopic Lumbar Discectomy

S(PECD) is a safe, precise, targeted and complete endoscopic procedure to treat soft cervical disc herniation with radiculopathy. It allows direct visualization of the herniated fragment under a live camera system, its removal, and inspection of the decompressed nerve root in an awake and aware patient. As patients are awake, it reduces the risk related to general anesthesia and to injury to important neurological structures.

Percutaneous Vertebroplasty and Vertebral Balloon

Augmentation procedure.

Minimally invasive procedure in which medical grade bone cement is injected into the vertebral body. The cement functions as an internal cast in the vertebra for pain relief and stabilisation.

Vertebral fracture: patients with vertebral compression fractures (VCFs), typically induced by osteoporosis, tumors or a traumatic injury, are good candidates for these procedures.





Headaches

Many a time, there is no proper diagnosis of headache. Even CT scan, CSF examination or MRI is not conclusive. These patients are treated as migraine for years. This type of headache may be cervicogenic headache, tension headache, cluster headache, occipital neuralgia etc.

A pain management specialist can diagnose & treat these conditions effectively.

Gasserian Ganglion Radio-frequency Lesioning

For trigeminal neuralgia (said to be the most excruciating pain in the world). This day care procedure under local anaesthesia uses a state of the art technique: a selective division can be targeted with a radio frequency generator under ITV or CT scan guidance.

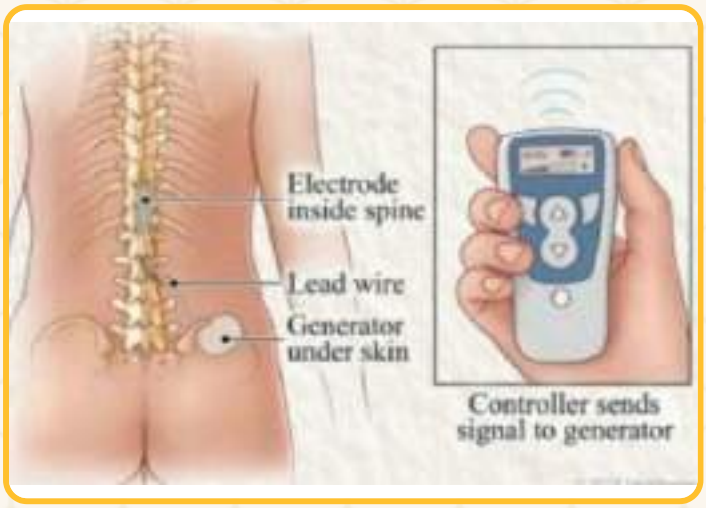


09 · PAIN MANAGEMENT

Neuromodulation Techniques

1.(A). Spinal Cord Stimulator

Also known as a dorsal column stimulator (DCS), an implantable medical device used to treat chronic neurological pain. An electric impulse generated by the device produces a tingling sensation that alters the perception. The electrode is implanted into the epidural space either by percutaneous approach or by surgical laminectomy or laminotomy. A pulse generator or RF receiver is implanted in the abdomen or buttocks. A wire harness connects the lead to the pulse generator.





Indicators:

- Failed back surgery syndrome / perineural fibrosis
- Adhesive arachnoiditis
- CRPS type I & CRPS type II
- Post herpetic neuralgia
- Peripheral neuropathy/Diabetic neuropathy
- Phantom limb pain/stump pain
- Peripheral vascular insufficiency
- Chronic refractory angina
- Cerebral palsy, multiple sclerosis

09 · PAIN MANAGEMENT (CONTINUED)

Neuromodulation Techniques

1.(B). Sacral Nerve Stimulation

A reversible option that can immediately reduce and even eliminate the symptoms of overactive bladder, including urinary urgency (failure to be able to postpone the need to urinate), frequency of urination (the need to urinate at least eight times per day) and urge incontinence (leakage of urine when one gets the urge to urinate).





2. Spinal Drug Delivery Systems / Intrathecal Drug Delivery System

A surgically implanted programmable pump and catheter that delivers medication directly into the intrathecal space where the fluid is. It relieves pain or spasticity with smaller amounts of medication (approximately 1/300 of an oral dose) than when the drug is taken orally. This method of delivery may help minimise side effects that can result from oral medication.

10 · HEALING FROM WITHIN

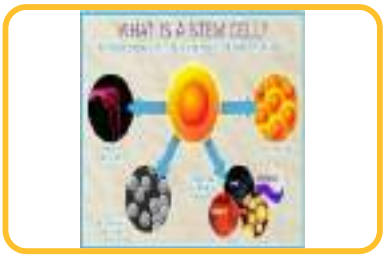
Regenerative Medicine

The process of replacing, engineering or regenerating human cells, tissues or organs to restore normal function. This field holds the promise of engineering damaged tissues and organs by stimulating the body's own repair mechanism to functionally heal previously irreparable tissues or organs.

Types of Regenerative Therapy

1. Stem Cell Treatment

Stem cell treatment, or stem cell therapy, involves using stem cells to treat or prevent diseases and injuries. Stem cells are unique cells with the ability to develop into many different cell types in the body, such as muscle, bone, and blood cells. This allows them to repair damaged tissues and potentially treat a wide range of conditions.





2. Platelet Rich Plasma (PRP)

Platelet-rich plasma (PRP) is a concentration of platelets in a small volume of plasma, derived from your own blood. Platelets are blood cells that contain growth factors and proteins that help with blood clotting and tissue repair. When concentrated and injected into injured areas, PRP can stimulate the body's natural healing processes.

3. Prolotherapy

Prolotherapy involves injecting an irritant solution, often dextrose, into joints, ligaments, or tendons to stimulate the body's natural healing response. The mild irritation from the injected substance triggers inflammation, which promotes growth of new collagen fibers, strengthening treated tissues and reducing pain.





4. Surgeries for Cartilage Regeneration

Surgical interventions address damaged cartilage and promote regeneration. While we can't perfectly regrow the original hyaline cartilage in most cases, surgical techniques aim to repair defects, stimulate new cartilage growth and restore a smooth joint surface to alleviate pain and improve function.





11 · CONTACT US

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SCAN ME

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