



MODERN ORTHO CLINIIC

FOR

MINIMALLY INVASIVE JOINT, SPINE, EAR, NOSES & THROAT SURGERY

Minimally invasive techniques achieve almost 100% success in Diagnosis and many times accuracy in operative goals than traditional procedures. It is through the keyhole by endoscope with bright light inside the body at operating site visualized 30 to 40 times magnified view on a monitor while minimizing tissue disruption so almost no blood loss ,no stitches, 1 to 2 days hospitalization , early recovery & in spine surgery no chance of nerve injury leading to paralysis.



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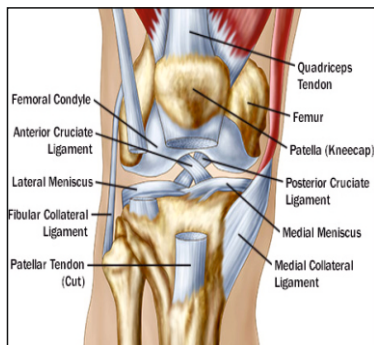
ARTHROSCOPY & SPORTS INJURY:

1. Arthroscopy is a telescopic surgery of joint like laparoscopic surgery in abdomen.
2. 2 to 3 key holes & no cut and no bleeding.
3. The telescope is introduced through the holes to joint and connected to monitor screen by cable where the inside of the joint can be viewed 20-40 times magnified.
4. Diagnosis is thus almost 100% and treatment is accurate.
5. Success rate is very high as compared to open surgery.



KNEE ARTHROSCOPY: Meniscus is the cushion between two bones femur and tibia.

Cruciate ligament is a rope like structure connecting two bones of the knee i.e thigh and leg bones and. plays important role in knee motion and stabilizes the joint.



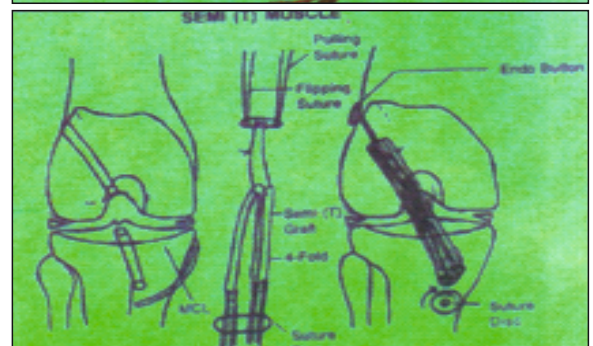
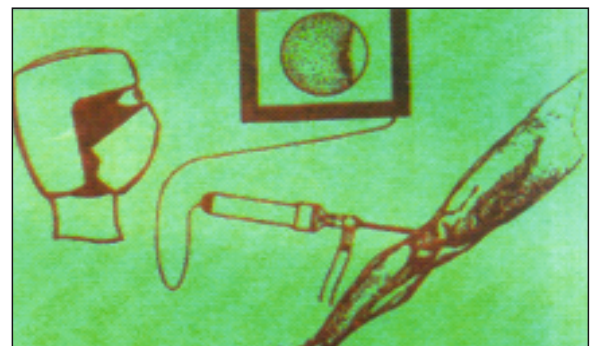
HOW A.C.L. IS INJURED:

A.C.L is commonly injured during sports and road accidents; but it may also tear during trivial injuries sustained in day to day activities like dancing, jumping, Running. A person may hear a 'pop' sound during an A.C.L. tear and this is usually

accompanied by Immediate swelling of knee. Most often we tend to pass this off as a simple knee sprain and is only later that we realize its seriousness.

WHAT HAPPENS ONCE A.C.L. IS TORN :

After an A.C.L. tear the knee becomes unstable, it buckles or gives way when you take a sudden turn or even a small jump. One feels insecure while walking on uneven ground and slopes and experiences a lot of apprehension during such activities. Over a period of time the knee might give way even during normal walking. After an A.C.L. injury your leg bone slides easily over the thigh bone. The abnormal movement causes progressive damage to other structures inside the knee, like meniscus and articular cartilage and eventually leads to early wearing off (arthritis) of the knee. There may a small tear or large bucket handle tear of meniscus or Cruciate ligament rupture or simple synovitis, loose body, osteochondral fragment, synovial Chondromatosis.





Loose bodies can be removed arthroscopically. In synovial diseases punch biopsy is taken. Tear in the peripheral part of the meniscus can be repaired with suture but if injured in the central part where blood supply is less and union is difficult, we have to balance that with RF (Radiofrequency) and Shaver.

SURGICAL RECONSTRUCTION OF ACL:

For Cruciate ligament we need to reconstruct with middle 1/3 of patellar ligament or semitendinosus tendon with or without gracilis tendon.

The surgery is performed under regional anaesthesia; the knee is first inspected with arthroscope to confirm the diagnosis.

For removal of semitendinosous tendon, we need 2-3cm cut in upper medial aspect of leg, Tendon stripper is used to remove the tendon. Length of tendon is about 24-32cm. We need to make it 4 fold & come out 60-80mm. Both ends will be sutured with ethibond suture. One end is tied with endobutton which is fixed on femoral side. Other end is fixed with suture disc which is fixed on tibial side.

With help of zig and drill bit tibial and femoral tunnels are made as per tendon size. Graft is then introduced into the joint and fixed in both tibia and femur with suture disc and endobutton respectively. These fixation devices normally need not be removed. 1-3 stitches are necessary. Brace is applied. No plaster, 2-4 days hospitalization in ligament injury. Same day discharge in meniscus injury. Normal activities after 6 weeks in ligament reconstruction and after 7 days in meniscus surgery.

SHOULDER ARTHROSCOPY:

Within this decade the treatment of shoulder joint is totally changed due to advent of new techniques, instruments like arthroscope and newer diagnostic tools like M.R.I. The shoulder problems are basically divided into 3 categories.

1. Recurrent dislocation of shoulder.
2. Rotator cuff tear
3. Subacromian bursitis

RECURRENT DISLOCATION OF SHOULDER :

Recurrent dislocation of shoulder means shoulder joint dislocated more than twice. Most of the time it starts with trauma which is either sports related accident or fall during house hold work. If not treated with adequate rest which is almost 6 weeks in the 1st incident than the muscles & capsule around the shoulder joint lies loose and it leads to recurrent dislocation, sometime during sports, or during taking out goods from higher shelf ; it dislocates, during removing the baggage from aeroplane, train, bus - it slips. When it happens more than twice the patient is not able to sleep comfortably at night with the fear that hand may go up over the head and may dislocate. Any work in overhead position of arm is a regular tension for the patient like during wearing a shirt or dress.

SURGICAL CORRECTION:

Arthroscopic Bankart's repair is a telescopic surgery just like laparoscopy with 2 to 3 small hole, 5 to 10ml blood loss and no stitches with immediate comfort after surgery almost without physiotherapy. Needs 4-6 weeks for full recovery.

- shoulder is a ball & socket joint, the socket is formed by the glenoid of scapula bone and the ball is the head of arm bone
- shoulder usually dislocate to front
- front part of the labrum is torn from the glenoid and slipped from its position due to dislocation
- 2-4 anchors is usually drilled to glenoid and the thread coming out from the anchors eye is fixed to torn labrum



- which is then pulled back to its original position on glenoid border to make a hood to the humeral head and prevent it from dislocation
- immediate post- op physiotherapy and arm pouch & no plaster
- it is a permanent solution
- patient can go back to his normal duty by 4-6 weeks and sports after 6 months

ROTATOR CUFF TEAR:

There are 4 muscles around the shoulder that controls all the movements of the shoulder. They are very heavy muscles, never tear with minor trauma, it only tears with accident or during sport. But due to the ageing process the muscles become thin & weak, so torn with trivial trauma or during regular work. The diagnosis, is very easy as the patient is not able to lift his hand and if the doctor or any body lift it & leave in the elevated position, the arm drops like a dead piece which is called *Drop arm* sign.

Arthroscopy is the best treatment or solution to get back the arm function, It needs only 2 to 3 holes, and 1 to 2 anchors by which the torn part of the muscles can be pulled back to its original position & implanted to the bone.

Needs only 3 wks rest & then some exercises to get full range of movement & function



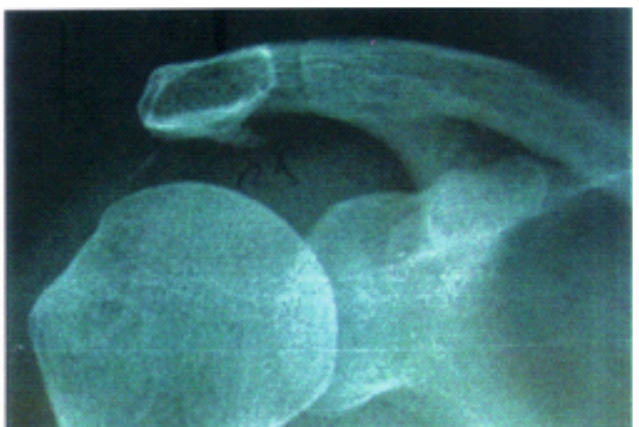
SUBACROMIAN BURSITIS:

Repeated irritation to the upper part of the shoulder joint by either the defective bone from birth (hooked acromion

process) ,or sports or exercises in Gym. some time leads to inflammation & swelling ,pain to the Subacromian bursa which is a balloon like thing that lies between the two bones to work like shock absorber.

The primary treatment is always the Rest, physiotherapy & medicines. If all fails surgery is the choice, and Arthroscopic Subacromian decompression is the best available tool to get relief from this. The man usually gets relieve within days & goes to his regular duty without any residual problem.

Dr P.C.DEY is the pioneer of Arthroscopic surgery in Odisha, and has the credit of operating more than 5000 knee and over 1000 shoulder arthroscopic surgeries



ANKLE ARTHROSCOPY:

Diagnosis of chronic ankle problems

Arthodesis

Synovectomy in rheumatoid arthritis

Lavage in Osteoarthritis

Removal of loose bodies.

Success of surgery also depends on patient's compliance, post operative protocol sincerely obeyed



WRIST ARTHROSCOPY:

Release of carpal tunnel syndrome

Arthodesis

Synovectomy in rheumatoid arthritis

Lavage in Osteoarthritis

Removal of loose bodies.

Surgery is only the first half of treatment of your problem and functional recovery will depend on how well you exercise to regain strength in your operated limb.



JOINT REPLACEMENT: (Stitch less & Pain less)

Joint replacement surgery is one of the most successful surgery among all the surgeries performed in medical science. Under Regional block, no general anaesthesia, Person can stand on the same day, next day walk upto toilet, knee bending upto 90 degree, 2nd day walk around the hospital, 3rd day stair case climbing, 4th day can go home and forget about the problem for 25 years.

Procedure takes about 45 mins to 1 hour, Short hospital stay 4 to 5 days, Almost no blood is required for surgery, Patient walks home and forgets about the operated joint for 30 years. If both knee, Hip or Shoulder is necessary to replace than better to do in one hospital stay to reduce the hospitalization, twice tension, reduce cost, speedy recovery, easy for physiotherapy and nowadays it is not a problem to do it in one sitting due to technical advancements. Use of computer is again a great achievement of medical science in replacement surgery to reduce the error and achieves the accuracy for deformity Correction and reduces the length of incision to almost no stitches and minimal blood loss, leads to short hospital stay, early recovery, minimal post op pain etc just like change of opaque lens to artificial lens in cataract surgery. The cartilage which is the soft cap or coating like thing on the bone ends, work like a washer is destroyed by the aging process, trauma and diseases, a patch like initially and end with total loss.

The cartilage with a few millimeter of bone which is destroyed is replaced with a plastic cap and fixed with bone cement. The cap is made up of plastic and works like washer. Different sizes & shapes of washer are available in the market just like lens for the eye. If both knee, Hip or Shoulder is necessary to replace than better to do in one hospital stay to reduce the hospitalization tension twice, reduce cost, speedy recovery, easy for physiotherapy and nowadays it is not a problem to do in one sitting due to technical advancements.

Dr P.C.DEY is a pioneer in bilateral joint replacement surgery and it is Painless & Stitchless.



Investigations Available:

Dexa Scan :



Nerve Conduction Velocity :

Digital X-ray :



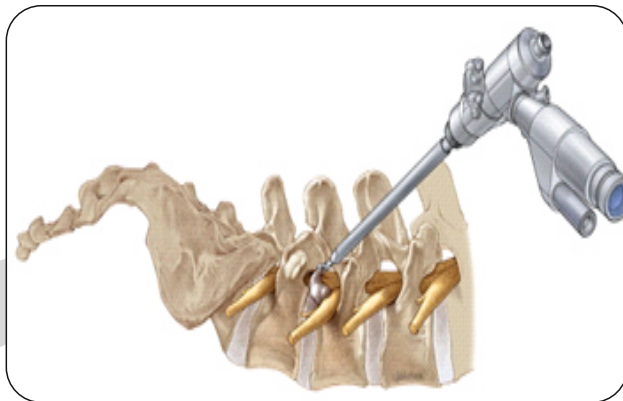
ENDOSPINE- ENDOSCOPIC SPINE SURGERY

(Minimally Invasive Surgery -16mm hole)

Eastern India's 1st Endoscopic Spine Surgery centre For Slipped Disc, Sciatica

ENDOSPINE

- Endoscopic Lumbar Discectomy
- Endoscopic Lumbar Canal decompression .

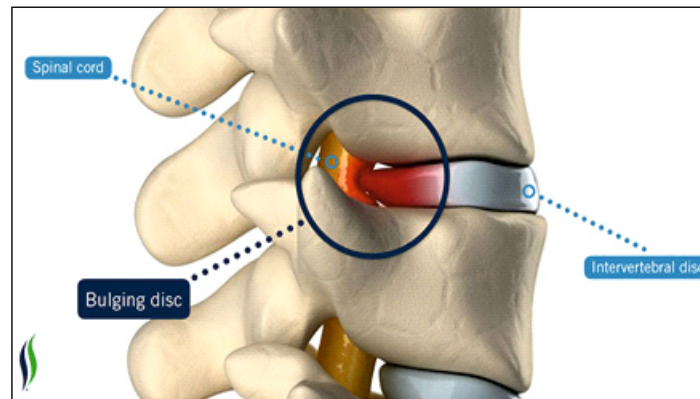


Minimally invasive techniques achieve almost 100% success in diagnosis and many times accuracy in operative goals than traditional procedures in spine surgeries.

Provides this painless, bloodless, stitchless procedure and maximum comfort at an affordable cost .

How Does The Spine Works ?

The Spine or Vertebral column is made up with 33 vertebrae, (7 in neck, 12 in mid back, 5 in lower back) and 24 discs. The disc is a cushion like thing lies in between two vertebrae and contains the nucleus pulposus at the centre surrounded by annulus fibrosus.



The extension of brain is called the Spinal cord, which passes through a canal made up by spaces at the centre of vertebrae and give rise to 25 pairs of nerves. The Upper 8 nerves supplies to both hand called brachial plexus and lower 5 nerves supplies to leg called sciatic nerve. The sensation like pain, touch, pressure are carried from different parts of body through nerves to spinal cord to brain.

What Causes Back Pain ?

"Back pain" is almost the most common complaint heard in the present century. Apart from being common it is also quite painful, distressing and causes limitations in day to day activities. It is estimated that 77% of the population will present with back pain and 35% with sciatica at least once during their lifetime. With the advent of M.R.I, the cause of back pain is diagnosed very early and almost 100% accurately.

It is mostly due to two causes. One being due to Slipped disc, which is most commonly seen in young generation, while lifting heavy weight in forward bending posture.

How were the above diseases treated so far ?

The Standard Surgical treatment is discectomy or lumbar canal decompression by Open or Microscopic technique ,

SO WHY ENDOSPINE ?

Traditional Spine Surgery needs long incision .Huge amount of muscles and tissues are stripped from spine to visualize the deep structures .

With Endospine, patients gets similar and even better results with very less complications by using High definition image system and skin incision about the size of thumb breadth .

What are potential Benefits ?

- 16 to 18 mm skin incision
- Minimal Blood loss
- 30 to 40 times Magnified & well illuminated view
- Average surgery time is 25 to 30 minutes ,
- Endospine is mobile tube ,so enables surgeon to illuminate and explore the hidden recesses
- Surgeon's Eye is practically inside the spine, so advantageous in obese patients .
- Special nerve root retractors protects the nerve . so remote chances to nerve root injury
- Less tissue damage,
- Minimal post operative pain
- Rapid resumption of physical activities including sports.
- No stitch
- Patient is mobilized on the same day,
- Discharged in a day or two
- Multiple level Canal Stenosis and disc herniation can be treated easily

Multiple Level lumbar canal stenosis

The lumbar canal stenosis is usually due to multiple factors like degenerative changes of spinal bone, ligamentum flavum hypertrophy, bulging of intervertebral disc and facet thickening with arthropathy.

Endoscopic Multilevel focal tiny procedure is an alternative to wide long cuts Open surgery . Such procedures preserve the midline bony and ligamentous complex, simultaneously achieve adequate decompression of the neural elements and shortens the postoperative recovery period .

When Should I consider Surgery ?

Surgery should always be the Last resort .However .if various conservative treatment fails or worsening over 6 to 12 weeks period ,surgery has to be considered for certain specific conditions .

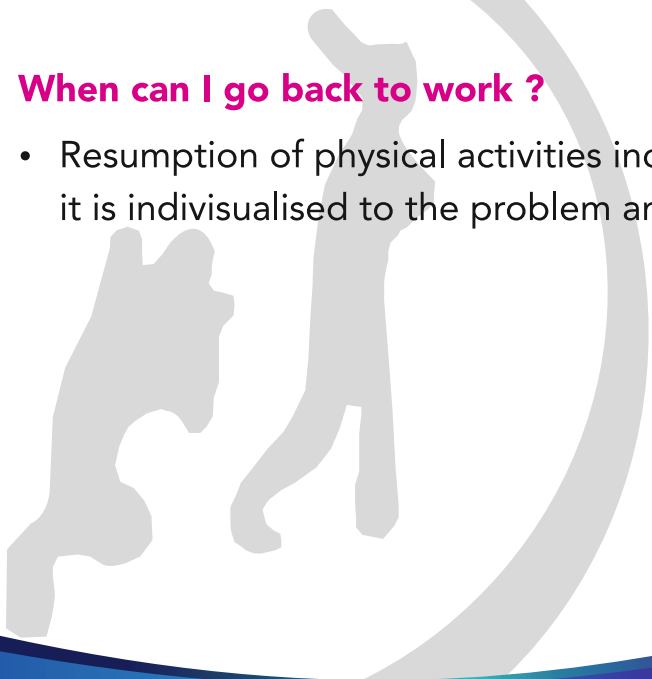
The decision should individualised to the problem and level of function .

How long will be in the hospital ?

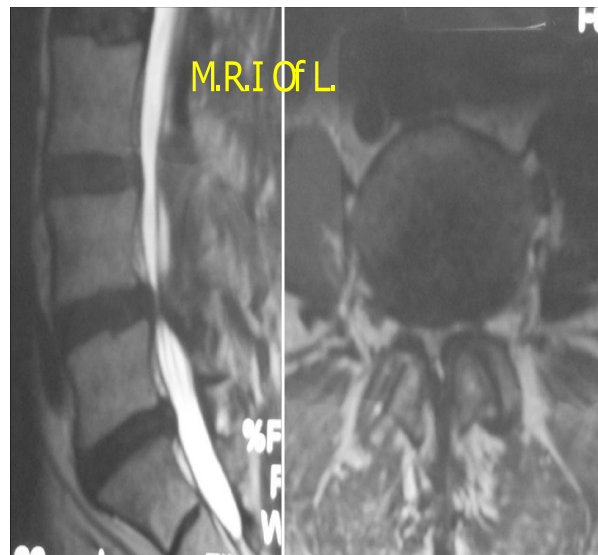
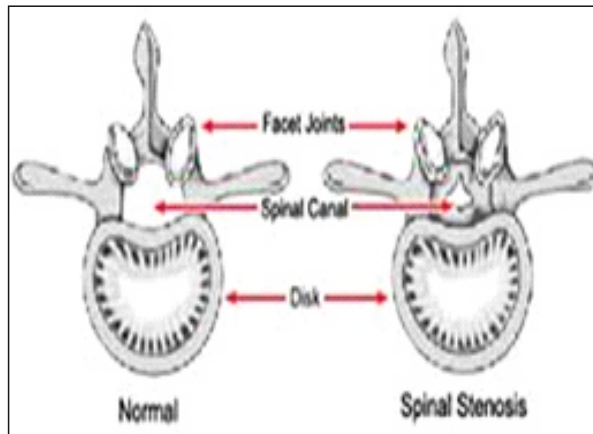
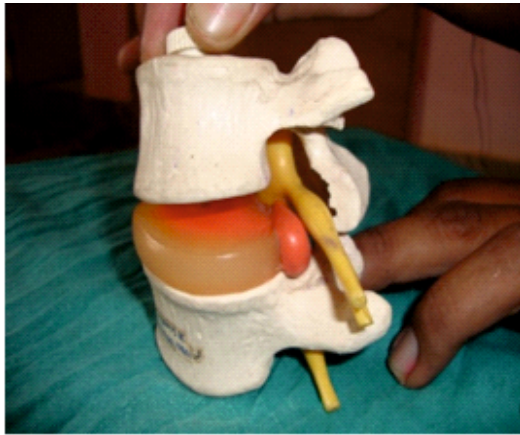
- Proper presurgical evaluation like X ray ,MRI,Blood tests , Cardiac Screening ,Control of Blood sugar if any is mandatory.
- Can walk to toilet after 2 to 3 hrs after surgery and go home on next day . Diabetics or other medical problem needs a more day stay .

When can I go back to work ?

- Resumption of physical activities including sports needs 10 to 20 days .But it is indivisualised to the problem and occupations.



Spinal canal stenosis or Sciatica



The other one is Spinal canal stenosis or Sciatica in which the diameter of the spinal canal is decreased due to aging process. When age advances the canal dimension decreases due to weakness of the bone and side projection, ligamentum flavum hypertrophy and disc degeneration. In both slipped disc and sciatica, spinal cord or nerve roots are compressed. The pain radiates from back to legs and toes. Tingling and numbness starts in legs and toes. During walking person feels tightness in legs and the walking distance reduces. Sometimes control over urine lost, is also called sciatica syndrome. At times negligence of petty symptoms leads to complete loss of sensation of toes and foot and loss of power of foot which is otherwise called footdrop.

What is Endoscopic Spine Surgery ?

The Endospine Surgery is the most advanced and Successful technique for treatment of Slipped disc and Sciatica . A special localizing device is used to localize the disease site with the help of image intensifier. The operating tube is placed on the laminae through a small 16 to 18 mm incision. The surgeon's eye is focused right inside the body close to the problem .The working insert mounted in the tube ,of having 4 channels, for 4mm telescope ,4mm suction tube , 8 mm operating instruments channel and the last one for nerve root retractor.



The entire procedure is performed under video-endoscopic monitor through high definition camera and the nerve is guarded by nerve root retractor, so almost nil chance of injuring the nerve .There will be minimal blood loss and no stitches required. It can move from left to right below the spinous process and very easily decompress bilateral nerve roots at multiple levels . Endospine minimizes post operative discomfort and allow for rapid resumption of normal physical activities including sports

Is Physiotherapy Required ?

In general not required
But in some special condition it may
be considered.



Do I have to wear Brace?

Generally no , Only for those who has associated
bony problems like Osteoporosis ,Fracture ,Spondylitis
or Spondylolisthesis



Will it Recur ?

Almost nil to Remote chances in comparison to Open and Microscopic
technique.

What are the percentage of nerve root injury or any other complication ?
we have most advanced high end facilities to treat the patients with
Endospine technique with almost nil complications .

It is 1st of its kind in Eastern India ,that **Modern Ortho Clinic,**
Bhubaneswar provides this painless ,bloodless ,stitchless procedure and
maximum comfort at an affordable cost .

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Our Specialist

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Fellow –Endospine –France

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Fellow—Arthroplasty—Singapore



Director Orthopaedics CARE Hospital ,Bhubaneswar,Odisha , India.

Honorary Secretary to WESS (World Endoscopic Spine Society)

Founder President ,OAS (Odisha Arthroscopy Society)

- ❖ Dr. P.C. Dey is the pioneer in Endospine surgery in Orissa and one of the pioneer in India, learned this noble technique directly from the pioneer Dr.Jean Destandau of France.
- ❖ Operated more than 2000 cases (which is the 3th highest in the World) by this technique successfully at a very affordable cost.
- ❖ At regular interval we are arranging training programmes and national, International conferences on Endospine, WESS(World Endoscopic Spine Society)Congress, to train the Ortho & Neurosurgeons of India and other countries.
- ❖ Dr Dey visits different parts of India & Other Countries to train the Neuro and Ortho Surgeons frequently.

DR. P. C. DEY CLINIC FOR MINIMALLY INVASIVE JOINT & SPINE SURGERY (ARTHROSCOPY & ENDOSPINE)

A

ARTHROSCOPY

KNEE

- Anterior & Posterior Cruciate Ligament Reconstruction
- Meniscus Repair
- Medial & Lateral Collateral Ligament Reconstruction
- Synovectomy, Loose Body Removal
- Osteoarthritis, Rheumatoid Arthritis
- Recurrent Dislocation of Patella- MPFL Reconstruction

SHOULDER

- Rotator Cuff Repair
- Bankart's Repair in Recurrent Dislocation

WRIST/ANKLE HIP/ELBOW

- Carpal Tunnel Syndrome Endoscopic Release
- Diagnosis of Chronic Ankle Problems
- Arthrodesis
- Synovectomy in Rheumatoid Arthritis
- Removal of loose Bodies
- Haglunds Deformity Correction
- Calcaneal spur excision

B

JOINT REPLACEMENT

KNEE

- Regular
- Cruciate Retaining
- High Flexion Variety

HIP

- Cemented
- Uncemented
- Surface Replacement

SHOULDER

- TSR
- Reverse TSR

C

ENDOSPINE

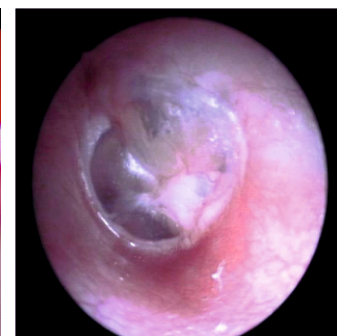
- Endoscopic Lumbar Canal Discectomy
- Endoscopic Lumbar Canal Decompression & Discectomy

Ear Nose Throat and Head n Neck Surgery

MICROEAR SURGERY

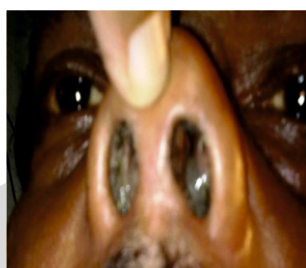
Discharge from Ear is a very Common Complain. But the Cause and treatment varies is each case. Discharge maybe due to any perforation in the drum i.e tympanic membrane or disease causing erosion of bone which is unsafe type. Both the causes are treatable with

Microear Surgery. If not treated, can cause serious life threatening conditions. Hearing loss may be due to varied causes, should be addressed early or else may lead to permanent hearing loss. Otosclerosis though may not be a common disease should be surgically managed at the right time. Vertigo should be properly evaluated and corroboratively managed



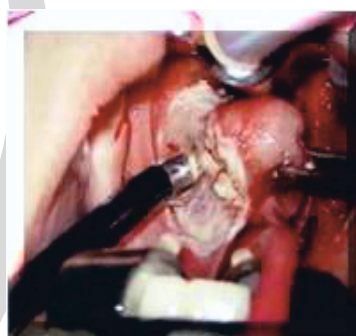
ENDOSCOPIC SINUS SURGERY

Discharge from Nose & Nose-block with headache is very common among people. Block may be due to a bent in the nasal bone (DNS) or block in the Sinuses causing Sinusitis. Sometimes there may be a growth or polyp in the nostrils blocking the airway. But all causes are treatable either with medicines or **ENDOSCOPIC SINUS SURGERY**.



Some brain tumours can be removed by Nasal route with Endoscopy
CROOKED NOSE correction is done with **Rhinoplasty**.

TONSILLITIS is a common condition can be managed by medicines or surgically, these days Coblation Tonsillectomy is done for minimal bloodloss



MICROLARYNGEAL SURGERY:

Inflammation of Larynx is known as Laryngitis, professional voice users like teachers singers etc suffer from this. Most of the time patients complain of change in voice, it may be due to infection or growth. Proper Endoscopic Evaluation is mandatory for diagnosis and the causes are treatable with good results.

Thyroid- Swelling in neck is another important symptom which should never be neglected. Causes are many but early detection and treatment can save life.

Parotid- Swellings should be carefully evaluated and cautiously dealt. Majority of the swellings are benign but 20% may be malignant



Snoring- A common problem both in children and adults. Getting up uncounciously at night and feeling sleepy during the day or sleeping at workplace is a matter of concern and should be evaluated. Can be controlled with life style modification but at times need surgery Head and Neck Cancer are on rise these days because of rise in addiction like tobacco and smoking. Early detection and management can save life

To Summarise:

- ~ Removal of nasal polyps or masses by endoscopy
- ~ Treatment of sinusitis by endoscopy
- . ~ Repair of perforation of eardrum by microear surgery
- ~ Removal of unsafe disease of Ear and reconstruction
- ~ Treatment of laryngeal lesions under microscope
- ~ Thyroid surgery and other neck surgeries including Oncosurgery





MODERN ORTHO CLINIC

Specialized Center for Minimally Invasive Surgery

E-mail: drpcdey@yahoo.co.in | Website: endospine-arthroscopy.com

ORTHOPAEDIC

- Arthroscopy of Knee, Shoulder, Wrist and Ankle, HIP, Elbow
- Endoscopic Lumbar Discectomy
- Endoscopic Lumbar Canal Decompression & Discectomy
- Joint Replacement

ENT

- Micro Ear Surgery
- Endoscopic Sinus Surgery
- Thyroid and Neck Surgery
- Micro laryngeal Surgery
- Head & Neck Oncosurgery

Facilities Available:

Pharmacy | Pathology | Radiology | Physiotherapy



Modern Ortho Clinic

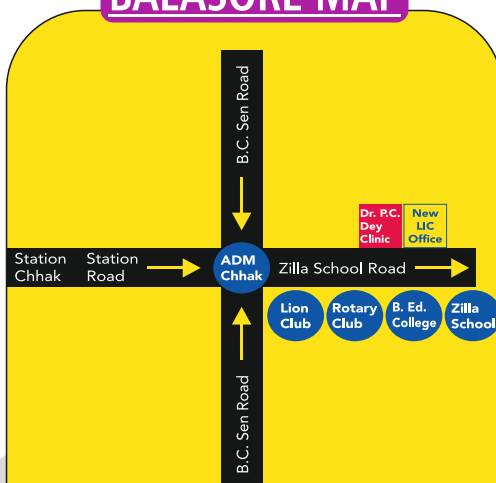
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BALASORE MAP



BHUBANESWAR MAP

