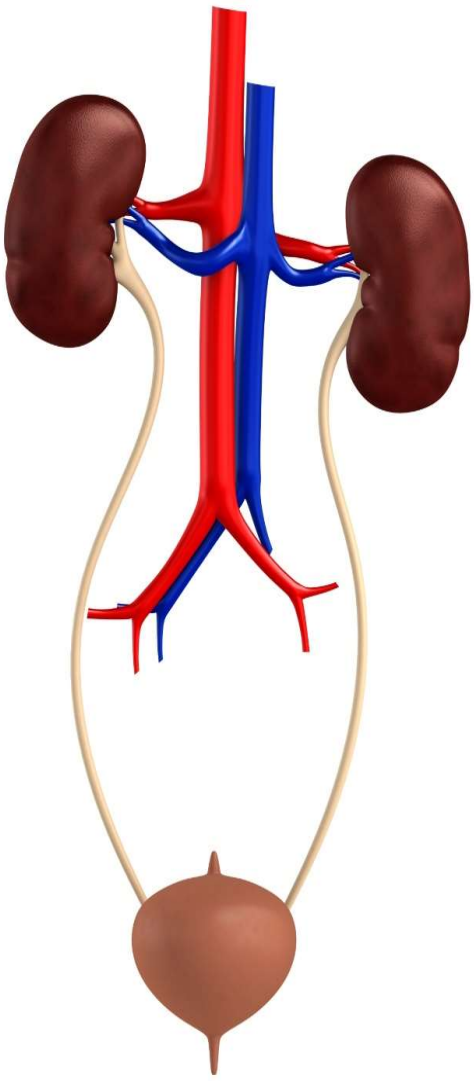
QUARTERLY ISSUE/ AUGUST-2024/VOL-2

MMF Hospitals Association
Joshi Hospital &
Ratna Memorial Hospital

MMFHA NEWSLETTER

INSIDE THIS ISSUE

SPECIAL EDITION
UROLOGICAL DISORDERS



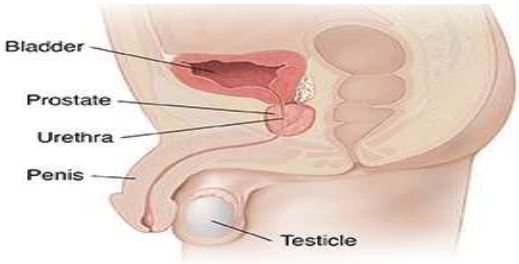
OUR EDITORIAL TEAM

Mr. ANIRUDH DESHPANDE	Dr. AJINKYA KELKAR	Ms. ASHWINI KHEDKAR	Ms. MAYURA MAHAJANI

BENIGN PROSTATIC HYPERPLASIA

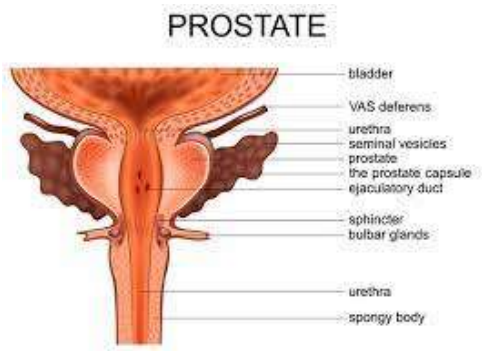
Understanding prostate problems and benign prostatic hyperplasia (BPH) [enlarged prostate]

Anatomy of the Prostate



How does the prostate function?

- Prostate fluid contains prostate-specific antigen (PSA)
- PSA breaks down semen to release sperm
- PSA can be measured in blood
- Indicates activity of prostate gland



Prostate Problems

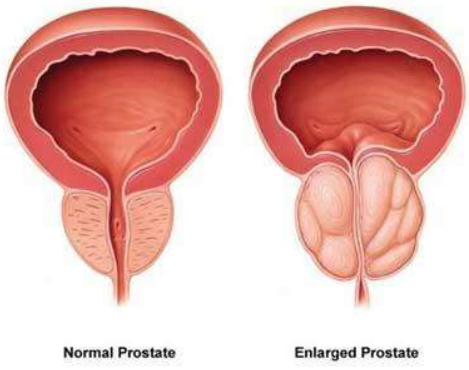
Three main causes:

1. Benign enlargement (BPH)
2. Inflammation of the prostate (prostatitis)
3. Prostate cancer

Prostate Growth

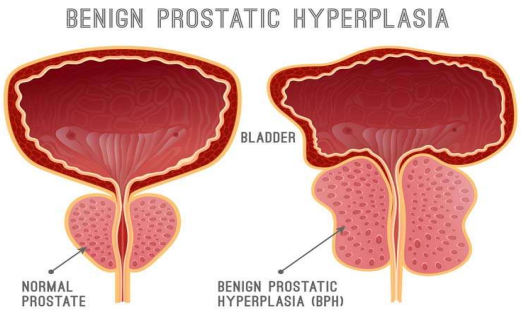
Growth and function of prostate is controlled by male hormone, testosterone

Dr. HIRALAL CHAUDHARY
MBBS, DNB (GENERAL SURGERY), DNB UROLOGY



What is benign prostatic hyperplasia (BPH)?

Non-cancerous growth by multiplication of cells



How common is BPH?

- Very common!
- 60% of men in their 60's have BPH
- 40% have symptoms
- By age 80 years old, 9 out of every 10 men have BPH

What are the symptoms?

Lower Urinary Tract Symptoms (LUTS)

- Frequent urination
- Sudden need to urinate (urgency)
- Night-time urination leading to disruption of sleep
- Straining to urinate
- Difficulty emptying
- Hesitant, weak stream
- Leaking or dribbling

Effects of BPH

- Not life-threatening
- Embarrassing
- Inconvenient
- Uncomfortable
- Impacts quality of life

How is BPH diagnosed?

- ➢ Medical history
- ➢ Symptom questionnaire
- ➢ Digital rectal exam
- ➢ Ultrasound
- ➢ Blood test
- ➢ Urine sample
- ➢ Urine flow rate

When is treatment required?

- Bothersome symptoms
- Worsening symptoms
- Unwanted consequences
- Retention, infection, kidney failure, stones, bleeding

How is BPH treated?

- Lifestyle changes and monitoring
- Supplements and plant extracts
- Medication to relax prostate
- Medication to shrink prostate
- Medication to relax the bladder
- Combination therapy
- Surgery

Surgical Options

- ✓ Transurethral incision (TUIP)
- ✓ Transurethral resection (TURP)
- ✓ Laser prostatectomy (Thulep & Holep)
- ✓ Open surgical prostatectomy

Will things worsen with time?

- Overall
  - ➢ 20% of men will worsen in 5 years it no treatment is taken
- Moderate to severe symptoms
  - ➢ 10-25, will require surgery within 3.4 years

Summary

- Most common cause of urinary symptoms in men.
- Likelihood of BPH increases with age
- Lifestyle changes can improve symptoms
- Good Treatment exist, your doctor can help!

BPH and Sexual Function

- Both BPH and sexual dysfunction increase with age.
- BPH likely contributes to sexual dysfunction in some men.
- Treatment of BPH most commonly has no impact on sexual function; however, may improve or worsen symptoms in different situations.

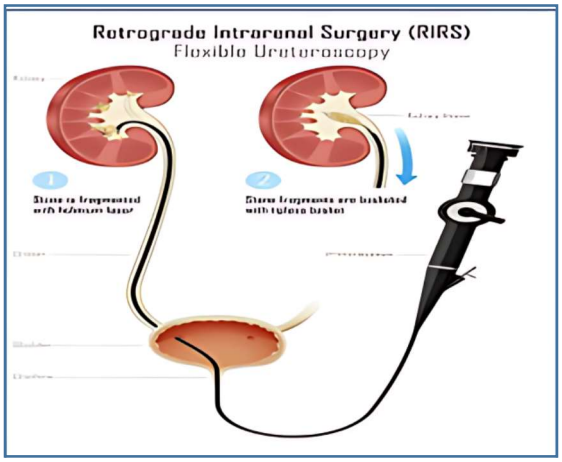
Dr. Hiralal Chaudhari

RETROGRADE INTRARENAL SURGERY

Dr. DEVENDU SHAH
MBBS, MS, DNB (UROLOGY)

What is RIRS?

RIRS stands for Retrograde Intrarenal Surgery. It is a surgical technique that uses a laser and a Fiber-optic endoscope. The procedure involves passing the endoscope through the urethra and into the kidney to remove stones. Importantly, no incisions are made on the kidney during RIRS. The surgery can be performed under general, or spinal anaesthesia.



Who Needs RIRS?

RIRS is typically used to treat kidney stones.

It is often the best option for patients with stones between 10mm and 20 mm in size.

When another treatment like shockwave lithotripsy and ureteroscopy have failed, RIRS can be effective.

How Does RIRS Work?

1. The patient receives spinal or general anaesthesia to ensure comfort during the procedure.
2. The urologist uses imaging tests to precisely locate the kidney stone.
3. A ureteroscope (a device with a camera) is inserted into the ureteral canal.
4. The surgeon identifies stones or areas of ureteral obstruction using the camera.
5. Stones are removed either whole with basket or broken into smaller fragments using laser beams.
6. An advanced holmium laser, or thulium laser targets the stone and preferably powders it.

Advantages of RIRS:

- Early recovery and less post-operative pain compared to other procedures.
- Minimal bleeding risk compared to other methods.
- Lower chance of repeat procedures compared to shockwave lithotripsy.
- Can be used for larger stones with the advent of Thulium Laser.
- Suitable for patients at high risk or those on blood thinners.

Risks and Complications:

- Risks during RIRS are minimal compared to more invasive procedures.
- Some risks include haematuria, pain, fever, and sepsis.
- In some cases, relook procedure may be needed for large volume stones.

Dr. Devendu Shah

LASERS IN UROLOGY

Dr. KETAN VARTAK
MBBS, MS-GENERAL SURGERY, DNB (UROLOGY)

Last 15 to 20 years have seen a massive transformation in Urology in the management of common problems like urinary stone disease, prostate & urological cancers. There is a massive leap in the development of newer LASER machines as well as newer miniature & flexible endoscopes.

MINI PCNL & ULTRAMINI PCNL-

PCNL is the standard care treatment for majority of patients having large renal stones. But relatively more pain in post operative period as well as risk of bleeding has made us shift to more miniature alternatives, namely, Mini & Ultramini PCNL. MiniPCNL requires only a 5 mm puncture in the kidney & can take care of majority of the stones upto 3.5 to 4 cm size (which is 80% of the patients). UltraminiPCNL is a marvel in engineering in terms of the size- size of a needle! All the renal stones upto 2.5 cm size can be tackled by UltraminiPCNL. The advantage is that the patients can be discharged within a day or two with minimal bleeding, pain & overall complications.

RIRS (FLEXIBLE URETEROSCOPE)

The newer, high resolution (digital) flexible ureteroscopes are available with only 2.5 mm diameter with a HD vision as well as great magnification. With the addition of these endoscopes, Urologists can clear renal stones upto 2.5 cm size with admission time of only a day with a minimal complication rate & pain.

LASERs

With the addition of more miniature & flexible endoscopes, we need an energy to fragment the stones which can be delivered through less than a millimeter size & which is flexible. Only LASER technology can deliver the energy which can clear the hardest possible stones with a much more effective manner. The smallest size of the LASER fiber is only 0.2 mm in diameter & still can clear hard stones.

Holmium LASER technology is available to us for last 25 years now. But the newer machines are more advanced with higher efficiency. It is available with dual foot switch so that it is easy for the surgeon to shift from fragmentation to dusting mode easily. The Holmium LASER is very effective in fragmentation of even very hard stones.

Thulium Fiber LASER (TFL)is the latest entrant in the Urologist's armamentarium. It is a highly effective LASER for dusting of the stones. As more & more operations are being done with RIRS in the current era, TFL helps a urologist to make the stone into a dust in the literally sense, thereby improving the stone free rates.

Thulium Yag LASER is the best possible LASER which is available for the treatment of BPH surgery. It has a very good power to enucleate the prostatic adenoma with minimal bleeding & less operating time. It can deliver energy to vaporize the tissue as well. Even if the prostate size is large (Exceeding 200 gm), we can do enucleation & send the patient home the very next day!

With all these technologies at our disposal, the open surgery rates are less than 1% now!

Dr. Ketan Vartak

IMAGING IN UROLOGY

Dr. DARSHAN SHAH

Imaging plays a crucial role in the evaluation and management of kidney stones due to its ability to accurately visualize and characterize these mineral deposits within the urinary tract. Here's a breakdown of the roles of different imaging modalities commonly used for kidney stones:

ULTRASOUND (US):

Advantages: Ultrasound is often the initial imaging modality recommended due to its safety, affordability, and availability. It does not involve radiation exposure, making it suitable for repeated use.

Limitations: It may have reduced sensitivity in detecting smaller stones in the kidneys and especially those in the mid -distal ureters. Patient factors such as body habitus and bowel gas can also impact its effectiveness in visualizing stones.

X-RAY (KUB - KIDNEYS, URETERS, BLADDER):

Advantages: X-rays are useful for detecting stones with higher calcium content due to their higher density. They can provide quick visualization and are relatively inexpensive.

Limitations: X-rays may not detect stones with low calcium content well. Additionally, they can be limited by patient anatomy (body habitus) and overlapping structures in the abdomen.

CT SCAN (LOW DOSE CT OF KUB REGION):

Advantages: CT scans are highly accurate in detecting and characterizing kidney stones of all types (calcium and non-calcium based). They provide detailed information on stone size, number, location, and density.

Specific Benefits: Low dose CT protocols minimize radiation exposure while still providing excellent image quality and diagnostic accuracy. This makes them particularly valuable for patients requiring repeated imaging over time.

Clinical Utility: CT scans not only aid in diagnosis but also help in treatment planning by guiding decisions on appropriate interventions based on stone size, location and density. They are crucial for assessing treatment effectiveness and determining if further intervention is needed to clear residual stones.

In summary, while ultrasound is often used as the initial imaging modality due to its safety and accessibility, CT scans (especially low dose protocols) are considered the gold standard for accurate detection and characterization of kidney stones. X-rays, while useful for certain types of stones, have limitations compared to the comprehensive information provided by

CT scans. The choice of imaging modality depends on factors such as clinical presentation, stone characteristics, and the need for detailed anatomical information.

Multiparametric MRI (MPMRI) of the prostate

What is MPMRI of the Prostate?

MPMRI is an imaging technique that uses technological advances in MRI to combine both anatomical and functional imaging of the prostate gland. This approach helps in identifying focal abnormalities that may indicate possibility of cancer.

Components of MPMRI:

-Anatomical Imaging: Provides detailed structural images of the prostate.

-Functional Imaging: Includes Diffusion-Weighted Imaging (DWI) and Dynamic Contrast-Enhanced (DCE) imaging, which assess cellular density and blood flow, respectively.

PI-RADS Scoring System:

The Prostate Imaging Reporting and Data System (PI-RADS) categorizes lesions identified on the MRI images based on their likelihood of being clinically significant prostate cancer: Things are then aside a score ranging from PIRADS 1 to PIRADS 5.

Clinical Implications of PIRADS score:

-Scores 1 and 2: Generally benign, often negating the need for biopsy.
-Scores 4 and 5: Highly suggestive of cancer, usually warranting a biopsy.
-Score 3: Indeterminate; requires further clinical evaluation and possible follow-up.

Advantages of MPMRI:

- Reduces Unnecessary Biopsies: By more accurately identifying patients who may need a biopsy, MPMRI helps in avoiding unnecessary procedures.
- Minimizes Complications: Reduces the risk associated with invasive biopsy procedures.
- Assists in Follow-Up: Valuable for monitoring patients who have been previously diagnosed and treated for prostate cancer.

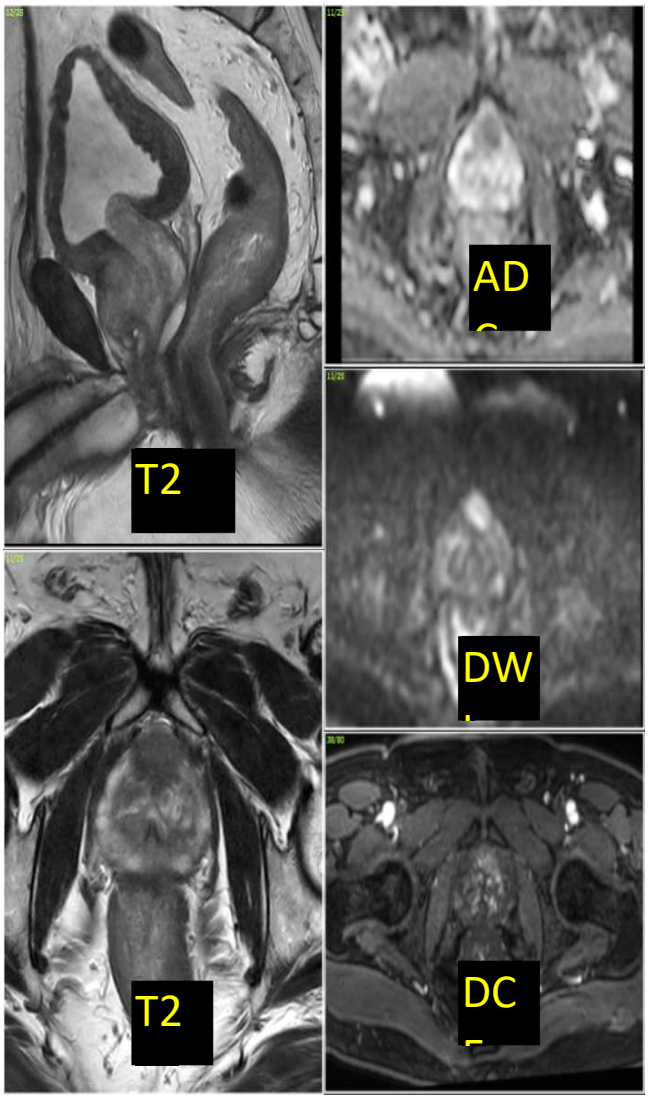
Addressing Limitations:

Not 100% Specific: MPMRI has limitations and may not detect all cancers or might produce false positives or negatives. It is not a standalone diagnostic tool but should be used in conjunction with other tests and clinical evaluations.

Special Cases:

Previously negative biopsy but persistent suspicion for prostate cancer: For patients who have had a previous negative biopsy but still have clinical suspicion of prostate cancer, MPMRI can be crucial. It helps in identifying specific focal areas within the prostate that might have been missed, guiding targeted biopsies and improving the chances of detecting any existing cancer.

In summary, MPMRI of the prostate represents a significant improvement in prostate cancer detection and management. Its ability to accurately assess potential cancerous lesions reduces the need for unnecessary biopsies and guides more effective follow-up and treatment strategies when used as part of a comprehensive diagnostic approach.



Dr. Darshan Shah

DIETARY LIFESTYLE FOR KIDNEY

Ms. SHIVANI TATKE
(BSc & PGD in Nutrition & Dietetics)

Urine contains many dissolved minerals & salts, when urine has high levels of these minerals & salts, can form stones. Kidney stones can start small but can grows large in size. If the stone reaches bladder, it can be passed out of the body through urine.

Risk factors for kidney stones :-

- **Low urine volume:-** A major risk factor for kidney stones is constant low urine volume. Dehydration lead to low urine flow due to hard exercise/ hot climate /drinking less water
- Family history
- **Diet :-** Too much salt in the diet is a risk

factor for calcium stones. This is because too much salt is passing into urine, keeping calcium from being reabsorbed from the urine & into the blood.

- Eating foods rich in oxalate can increase the risk of Calcium oxalate stones. A diet high in animal protein – red meat, beef, seafood, chicken & pork & low in fruits & vegetables can increase the acid levels in the body & urine, they make calcium oxalate & uric acid stones to form.

Obesity:- Obesity may change the acid levels in the urine, leading to stone formation.

- **Medical Condition:-** Abnormal growth of parathyroid glands, which control calcium metabolism, can cause high levels of calcium in body. Gout / Arthritis
- **Medication:-** Taking some medicines, such as Calcium based antacids or calcium supplements. Taking some protein powders for muscle gaining.

Symptoms of kidney stones:-

- Cramping pain in the back side.
- Burning sensation & bleeding during urination
- Nausea & vomiting
- Fever with chills

Types of Kidney stones:-

- **Calcium stones (80%): -** Very common type of kidney stone. 2 kinds of calcium stones – Calcium oxalate & Calcium phosphate. Too much calcium in urine, raising the risk of calcium stones. Calcium stones do not form from the calcium that

you eat. They form when your bones do not use up of the calcium in your body.

- **Uric acid stones (5 – 10%): -** Uric acid can end product from high levels of natural chemical called **"purines"**, which is turned into uric acid in the body. Purine is found in meats, shellfish. Uric acid crystals do not dissolve well in acidic urine & will form stones.
- **Struvite stones (10 %): -** These are uncommon. These stones are related to chronic urinary tract infections.
- **Cysteine stones (less than 1%): -** Cysteine is an amino acid, one of the building blocks of protein. Cystinuria (too much cysteine in urine), can cause stones to form.
- **Staghorn stones: -** These are differentiated by their size & shape. They can also be composed by calcium, uric acid or cysteine.

Dietary changes for kidney stones:-

- **Drink enough fluids each day:-** Drink at least 3 litres of water or fluids each day. Take buttermilk, soup, lemon water, coconut water, barley water for increase fluid intake.
- **Reduce the amount of salt in your diet:-** Foods are high in salt, to be avoid -
  - ✓ Cheese, processed foods & preservatives
  - ✓ Most frozen foods & meats
  - ✓ Canned vegetables, ready to eat soups, sauces
  - ✓ Bakery items
  - ✓ Salty snacks like chips, wafers, farsan, bhujia

  - ✓ Bottled salad dressings & breakfast cereals
- ✓ Pickles, papad, Chinese food (Ajinomoto)
- **Eat the recommended amount of calcium: -** Eating calcium rich foods every day is a good for kidney stones. Get enough calcium from the diet without any supplements. Take milk, curd, buttermilk, homemade paneer.
- **Eat plenty of fruits & vegetables: -** Eating at least 5 servings of fruits & vegetables daily. They are rich in fibre, potassium, magnesium, antioxidants, phytate & citrate, may help keep stones from forming.

- **Eat foods with low oxalate levels: -** Eating calcium rich foods with meals can often control the oxalate levels in urine. High oxalate foods – spinach, beetroot, potato, soya, cocoa, chocolate, Tea, dry fruits-almonds, cashews to be avoided.
- **Eat less non veg foods:-** if you make calcium – oxalate stones & your urine uric acid is high, then you eat less animal protein - red meats, fish, seafood like lobsters, oysters, poultry, pork, lamb.

Ms. Shivani Takte

DIET MYTHS AND FACTS

Ms. KRISHNA RATHI
(MSc food science and Nutrition)

1. **Myth:**
   Salt substitutes are better than salt
   Fact:
   Salt substitutes are also known as low sodium salt. These salt are low in sodium but are replaced by potassium salts. It may lower the risk of blood pressure, stroke and heart diseases. It is beneficial in some cases but not in all cases especially in case of kidney, heart, liver diseases. It may increase potassium levels in blood more than normal, this adverse event called as hyperkalaemia. Hyperkalaemia can cause arrythmias and cardiac arrest. So it is not always good to have salt substitute in general ,especially when you have other health issues. Ask your health care professional before starting one.

for kidneys to remove potassium from the blood.

2. **Myth:**
   Cranberry juice is cure for urinary tract infection.
   Fact:
   Urinary tract infection is the presence of certain bacteria in the urinary tract. UTI can occur both men and women, it is more common in adult women than adult men. And usually treated with antibiotics first.
   Cranberry juice and cranberry products

may be effective for urinary tract infection. Cranberry juice contains a substance- A type proanthocyanidins (PACs) which can prevent bacteria from sticking on the bladder walls. But some studies have shown mixed results. At present cranberry supplementation can safely be suggested as complimentary therapy in women with recurrent UTI. At present there is no evidence that cranberry can be used to treat UTIs.

Ms. Krishna Rathi

REFORMATION OF INDIAN HOSPITALS SINCE 1990'S TO TODAY'S ERA

Dr. AMIT SHINGADE
Medical Administrator- RMH

The Indian healthcare and hospital sector has undergone a remarkable transformation over the past few decades, from 1990 to 2024. In the early 1990s, India's healthcare system was facing major issues like inadequate infrastructure, insufficient medical professionals, and limited access to quality care, especially in rural areas. In the early 90s, private hospitals begin to establish, offering better facilities and care, but at a cost that was unaffordable for the masses. The government hospitals were overcrowded, underfunded, and struggled to provide basic health care facilities. The turning point came in the early phase of 21st century, with the liberalization of the healthcare sector, leading to an influx of investments and the establishment of multi-specialty and super speciality hospitals. Corporatization of healthcare took off. The 2010s saw a significant expansion of healthcare infrastructure, with an increased focus on technology adoption, digitization, and telemedicine. By 2024, India's hospital sector had transformed into a vibrant, technology-driven industry, with following transformations. Modern, state-of-the-art facilities like modular Operation theatres. Increased emphasis on patient safety and quality care with emerge of NABH (National accreditation board for Hospitals and Healthcare org.) Growing trend of medical tourism Increased focus on preventive care and wellness. Use of modern equipment's like, Laparoscopes, Lasers and robotic technology etc. Use of motorized beds than traditional ones. Use of software for hospitals operationally interlinked departments like, laboratory, radiology, nursing desk with administrative departments. In addition, remarkable Growth was shown by private health insurance sector in India.

The Indian hospital sector has come a long way, with a renewed focus on patient-centric care, innovation, and accessibility, making healthcare more inclusive and effective for a larger population.

Likewise, Maharashtra Medical Foundation hospitals associations, Joshi Hospital and Ratna memorial Hospitals were turned into a modern era hospital in Pune. Both hospitals were started in 90s decade with basic infrastructure and limited resources but changed into serving super speciality services to the Punes vicinity in today's date.

Joshi hospital serving majorly for the patients of medicine, Neuro surgery, Neurology, Cardiology, Cardiothoracic surgery's, Respiratory medicine General and laparoscopic surgery's, Orthopaedics, ENT, Oncology, Oncosurgery etc.

URODYNAMICS

For giving excellent health care services we are equipped with,

1. State of art, operation theatres
2. Specialised cardiothoracic department with well-equipped cardiac ICU.
3. Ultramodern Cath lab.
4. Quality of patient care with NABH accreditation
5. All leading health insurance tie-ups.
6. Fully equipped laboratory
7. 24*7 Intensive care unit

At Ratna Memorial hospital we are serving majorly Urology, Medicine, General and laparoscopic surgery's, Orthopaedics, ENT, Dentistry and Maxilo facial surgery, Oncology, Neurology, Nephrology, Ophthalmology, Dermatology.

For providing best possible care we have modern equipment and infrastructure like

1. A Fully equipped Operation Theatre
2. Advanced lasers for urology surgeries

UROLOGY OPD

3. A State of art Lithotripsy Department
4. A Urodynamic Department
5. A fully equipped Dialysis Department.
6. A 24*7 Intensive care unit.

Dr. Amit Shingade

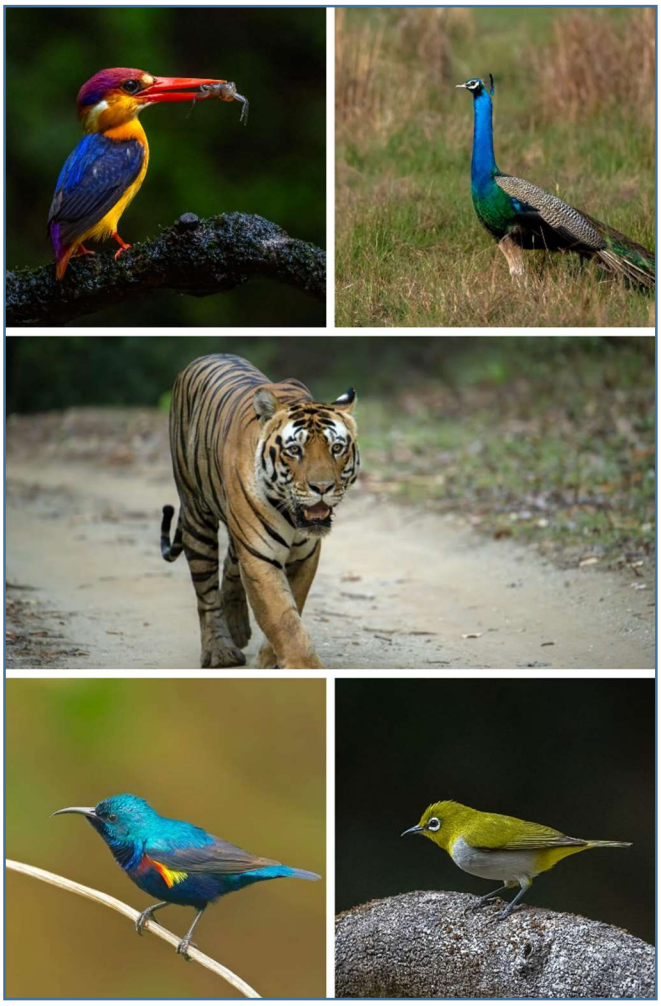
ACHIEVEMENTS

Dr. SHARAD MUTALIK
FRCP (EDINBURGH)

Dr. SANAT PATHAK
MD, DM, MRCP

Dr. SHARAD MUTALIK AND Dr. SANAT PATHAK RECEIVED FELLOWSHIP OF ROYAL COLLEGE OF PHYSICIANS (FRCP) LONDON.

ART GALLERY



Photography by Dr. Gajanan Kanitkar

Paintings by Dr. Megha Firodiya

HOSPITAL GALLERY

WARM WELCOME TO OUR MMFHA FAMILY

Dr. CHAITALI BETAWADKAR
CHIEF OPERATING OFFICER

Dr. AISHWARYA GAIKWAD
QUALITY HEAD

Mr. SHOURYADIPTA GHOSE
BILLING INCHARGE

JOSHI HOSPITAL

Dr. AJAY LOKHANDE (RMO)

Dr. SHITAL TAJVE (RMO)

Dr. PRATIK SHELKE (RMO)

Mr. SHUBHAM TANDALE (PURCHASE EXECUTIVE)

Ms. HARSHADA GODBOLE (DEO)

Ms. SHIVANI DESHPANDE (OPD COORDINATOR)

RATNA MEMORIAL HOSPITAL

Dr. PHILIPS MONALISA (RMO)

Dr. UTKARSHA SHINDE (RMO)

Dr. RUTUJA APAR (RMO)

Dr. PRAKRUTI PAWAR (RMO)

Dr. SAYALI MALI (RMO)

Dr. AKSHARA JOGI (RMO)

Ms. SHWETA WANKHEDE (PHYSIOTHERAPIST)

- EMPLOYEE OF THE QUARTER -

JOSHI HOSPITAL

Ms. MEENAL RAHATE
NURSING

Ms. SUVARNA MOHOL
PATHOLOGY

Mr. JAIRAM JADHAV
MULTI-PURPOSE WORKER

RATNA MEMORIAL HOSPITAL

Dr. CHETAN PATIL
MEDICAL SERVICES

Ms. SHRUSHTI UKIRDE
NURSING

Mr. SANTOSH BHOSALE
MULTI-PURPOSE WORKER

- SCOPE OF SERVICES -

- ANAESTHESIA
- CARDIOLOGY
- CARDIOTHORACIC SURGERY
- CHEST/ RESPIRATORY MEDICINES
- DERMATOLOGY
- DIABETIC FOOT CLINIC
- DIETETICS AND NUTRITION
- ENT
- GASTROENTEROLOGY
- GENERAL AND LAPROSCOPIC SURGERY
- GERIATRIC MEDICINE
- HAEMATOLOGY
- MEDICINE
- MAXILLOFACIAL SURGERY
- NEUROSURGERY
- MEDICAL ONCOLOGY
- ONCOSURGERY
- OPTHALMOLOGY
- ORTHOPAEDICS
- PAIN MANAGEMENT
- PLASTIC SURGERY
- RADIOLOGY
- PSYCHIATRY
- RADIOLOGY
- SHOULDER CLINIC
- SPINE SURGERY
- UROLOGY
- VASCULAR SURGERY
- NEPHROLOGY
- NEUROLOGY