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EDITOR IN CHIEF- DR NIRMAL

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MESSAGE FROM CHIEF OF MEDICAL SERVICES,CCL



DR NANDITA AGRAWAL

One day a young orthopedic surgeon of Gandhi nagar hospital approached me with the idea of publishing an e health magazine which would focus on many thing that our patients needed to know, awareness about the facilities available in our hospital, different medical conditions where prevention is better than cure and staying healthy is being wealthy. It would also provide a platform for doctors to share emerging & newer aspects of medicine and exchange their views and ideas which in turn our patients can also read.

I could not believe my luck-here was a young man willing to take up the challenge and fulfill my long time dream of ccl having its own health magazine.

Hiding my excitement I asked him about the nitty grittyies.

He assured me that I will have a broad frame in 2 -3 days time.2 days later another young doctor was presenting me with a rough copy, it had captured the essence of everything that we were trying to convey.

Today we present before you the first volume of this e-magazine. It's very name "**Arogyata**" embodies our wish of being healthy and staying healthy. That they have been able to compile it in one month is a testimony of their energy, commitment, dedication and ability to meet a deadline. These also characterize their nature as doctors.

These two gentlemen are DR NIRMAL KUMAR,SR SPL(ORTHOPAEDICS) and DR SUMIT KUMAR SR. M.O,GNH. their hard work was incomplete without the help of experienced hands of DR V.K.SINGH,DY CMO(HQ).

This e- health bilingual magazine will be published quarterly on ccl web.

I wish the magazine a long life and happy reading to all our "Brihad Pariwar" members

FROM THE **EDITOR'S DESK**



Dr Nirmal Kumar

Medicine originated in magic, flourished as priestly art and evolved with science. Medicine and Surgery today are performing mind boggling feats thought impossible a century ago. Yet paradoxically man and medicine stand together more discontent. Medicine faces newer challenges everyday with old practices being challenged by ever changing newer evidence based practices, with once considered “state of art” technologies being declared obsolete within years of its inception subdued by a newer hi-tech version and the ever growing demand of patients to be treated in the “latest and the best” manner.

We are living in an age of information with so called latest advancement’s news spreading worldwide in no time without being put to litmus test of reliability, effectiveness, affordability and safety. With media flashing so called miracle cures making people believe that medicine is all knowing, a misconception far from truth. This makes the importance of proper information communication all the more important.

This health magazine of CCL is an endeavour to facilitate a platform to all the stakeholders to share and learn about the health issues concerning beneficiaries of CCL hospitals. We aim to highlight cases of learning interest dealt at our own hospitals and provide useful updates and guidelines related to varied medical conditions which would help the service providers serve the beneficiaries in a more relevant, customized and contemporary fashion.

Contemporary medicine reflects the virtues and shortcomings, the strength and weaknesses of contemporary world. Nothing is full proof in this world and science of allopathy is no exception to this. Learning is a never ending process. With these thoughts the editorial team wishes to ignite a zeal for learning. The editorial team thanks the patrons and the advisory board members for materializing this noble concept and for rendering full hearted support and guidance for the health magazine. We wish all our readers of the magazine a happy reading.....

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CardinalHealth™

AN EVERYDAY HEALTH INFOGRAM

7 STEPS TO A HEALTHIER HEART

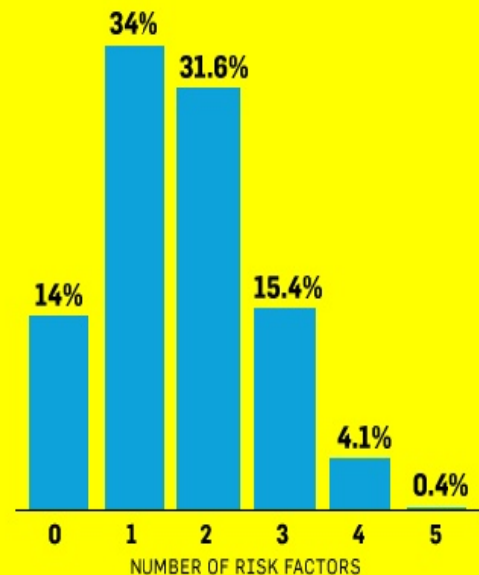
You don't have to make big changes to reduce your heart attack and stroke risk. Here are 7 healthy habits that could save your life:

- Live smoke-free.** If you smoke, quit.
- Monitor your blood pressure.** Keep your numbers below 120/80 mm Hg.
- Maintain a healthy weight.** Target a body mass index (BMI) of less than 25.
- Watch your cholesterol.** Strive for a total cholesterol less than 200 mg/dL.
- Control your blood sugar.** Aim for a fasting blood glucose less than 100 mg/dL.
- Get active.** Log 150 minutes of moderate intensity activity - like brisk walking - per week (or 75 minutes of vigorous-intensity activity).
- Eat a heart-healthy diet.** Make vegetables and fruits, whole grains, and fish mealtime staples. Limit sodium, saturated fat, and added sugar.

I love you, salt,
but you're
breaking my
heart.

What's Your Heart Attack Factor?

The percent of first-time heart attack patients who had traditional heart disease risk factors



RISK FACTORS INCLUDED:

- SMOKING
- DIABETES
- HIGH BLOOD PRESSURE
- HIGH CHOLESTEROL
- FAMILY HISTORY



Health is everything.

6 Surprising Facts ABOUT YOUR HEART



EST. 1991
Representing 26,000
physicians and scientists
from 120 countries
worldwide

www.worldhealth.net

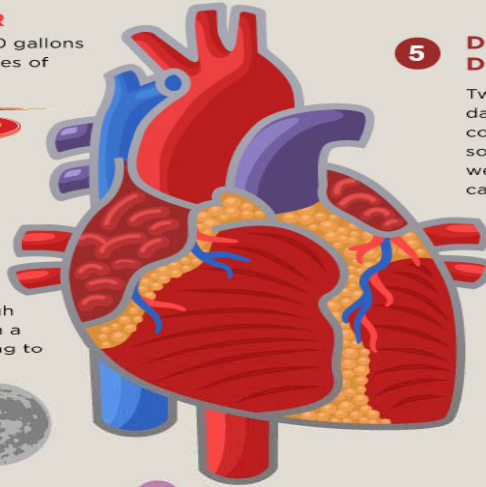
1 PERSISTENT PUMPER

A healthy heart pumps 2,000 gallons of blood through 60,000 miles of blood vessels each day.^[1]



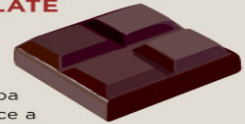
2 POWERFUL PUMPER

Every day, the heart creates enough energy to drive a truck 20 miles. In a lifetime, that is equivalent to driving to the moon and back.^[2]



5 DARK CHOCOLATE DELIVERS

Twenty grams of dark chocolate – containing 76% cocoa solids or higher, twice a week may help improve your cardiovascular risk profile.^[5]



6 KEEP MOVING

With evidence mounting that suggests that the more a person sits, the greater his/her risk of chronic diseases, research teams from Australia to Great Britain confirm that the more a person sits, the greater the risk of chronic diseases – notably of the variety that raise cardiometabolic risk.^[6]



3

An average man's heart weighs 10-12 oz.^[3] It beats approximately 70 times a minute.^[4]

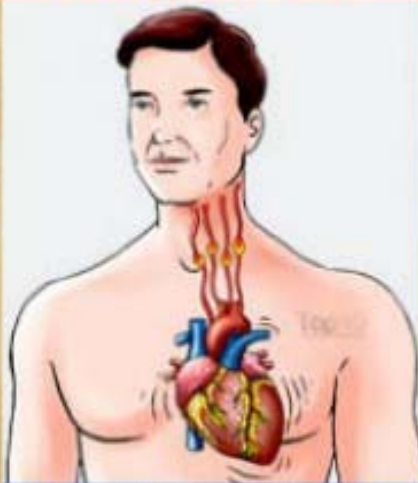


4

An average woman's heart weighs 8-10 oz.^[3] It beats approximately 78 times a minute.^[4]

YOU MUST KNOW THE DIFFERENCES BETWEEN

HEART ATTACK

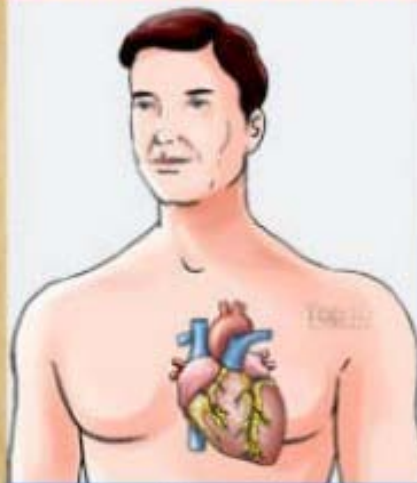


A heart attack is a circulation disorder.



- CHEST PAIN (ANGINA)
- BODY ACHES
- SHORTNESS OF BREATH
- COLD SWEATS

CARDIAC ARREST

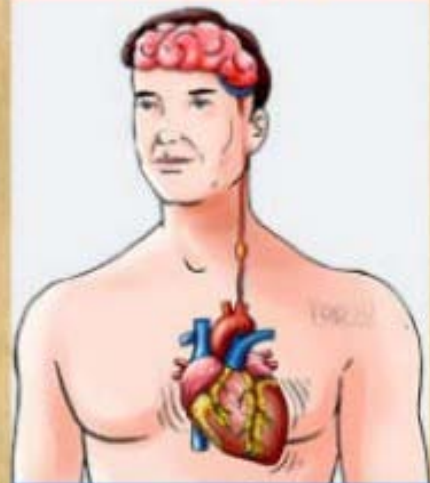


A cardiac arrest is an "electrical" disorder.



- LOSS OF CONSCIOUSNESS
- BLACKOUT
- CHEST PAIN
- EXTREME PALPITATION

STROKE



A stroke is a brain disorder.



- MENTAL CONFUSION
- DISRUPTED SPEECH
- INABILITY TO WALK
- BLURRED VISION

THE FORMULA FOR GOOD HEALTH






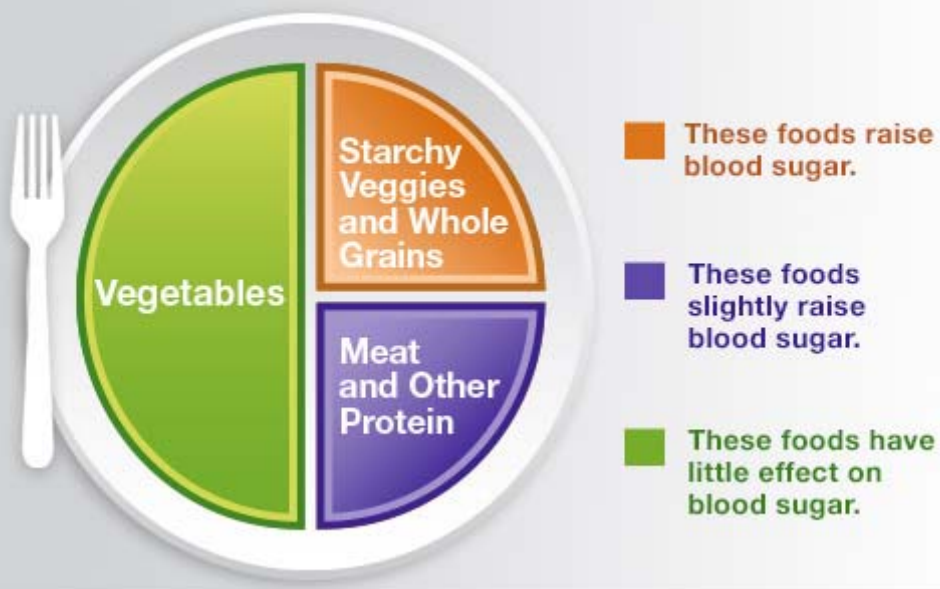
-  → **0** Cigarettes
-  → **5** Servings of fruits and vegetables per day
-  → **15** Minutes of silence, relaxation or meditation per day
-  → **30** Body Mass index < 30 kg/m²
-  → **150** Minutes of exercise per week (eg. brisk walking or equivalent)

Plate is 9" in diameter with regular-size portions



Heme Iron Polypeptide

A New Paradigm In The Treatment Of ID & IDA

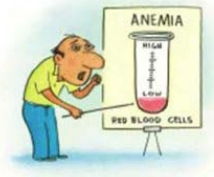


DR. PREETI SHARMA

Iron Deficiency Anemia (IDA)

Definition

- Anemia is derived from the ancient Greek word anaimia meaning 'lack of blood'
- It is defined by a decrease in the total amount of hemoglobin or the number of red blood cells.
- Occurs due to lack of sufficient iron to form normal RBCs



- According to 2005-2006 National Family Health Survey (NFHS-3) the prevalence of anemia in India was:
 - 70% in children aged 6–59 months
 - 55% in females aged 15–49 years
 - 24% in males aged 15–49 years

Epidemiology

- 2 billion people are anemic in the world and half of the anemia is due to iron deficiency
- Anemia is a late indicator of iron deficiency
- Prevalence of iron deficiency is 2.5 times that of anemia
- Anemia is a major health problem in India.



IDA in Pregnancy

- A gain in plasma volume during pregnancy dilutes the RBCs and may be reflected as anemia.
- Iron deficiency anemia accounts for 75% of all anemia in pregnancy



Iron in diet

- Richest sources of heme iron - **lean meat, seafood**. Dietary sources of nonheme iron - **nuts, beans, vegetables, and fortified grain products**.
- Heme iron has higher bioavailability than nonheme iron - bioavailability 14-18% from mixed diets that include substantial amounts of meat/fish and 5% to 12% from vegetarian diets
- Vitamin C enhances the bioavailability of nonheme iron
- Meat, poultry, and fish enhance nonheme iron absorption, whereas phytate (present in grains and beans) and certain polyphenols in some non-animal foods (such as cereals and legumes) inhibit absorption



RDA OF IRON

A balanced diet contains 5-6 mg of iron/1,000 kcal

- Recommended amount of iron
 - Adult man: 5-10 mg / day
 - Adult woman: 7-20 mg / day

Role of Iron in Human Body

- Iron mainly exists in complex forms bound to protein (hemoprotein) as:

- Heme compounds (hemoglobin or myoglobin)
- Heme enzymes
- Nonheme compounds (flavin-iron enzymes, transferring, and ferritin)



Sources of Iron

- Dietary iron occurs in two forms:
 - Heme
 - Nonheme
- The primary sources of heme iron are:
 - Hemoglobin
 - Myoglobin from consumption of meat, poultry, and fish



- Nonheme iron is obtained from:

- Cereals
- Pulses
- Legumes
- Fruits
- vegetables



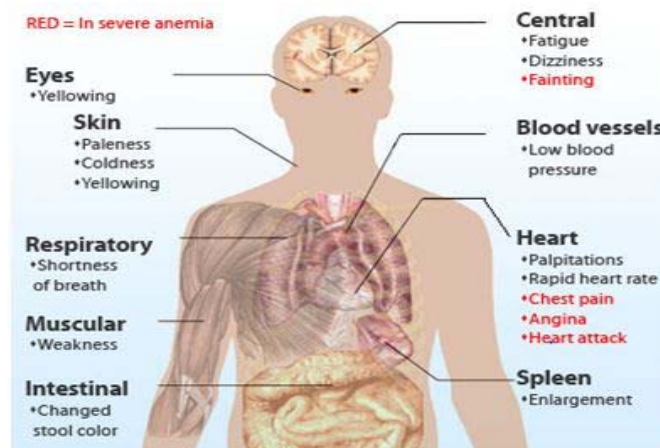
Daily Requirements

Age/sex	mg/day ^b
4-12 months	0.96
13-24 months	0.61
2-5 years	0.70
6-11 years	1.17
12-16 years (girls)	2.02
12-16 years (boys)	1.82
Adult males	
Pregnant women ^c	1.14
First trimester	0.8
Second and third trimester	6.3
Lactating women	1.31
Menstruating women	2.38
Postmenopausal women	0.96

GROUP AT HIGHER RISK

- Population at risk consists of:
 - Inadequate access to foods rich in absorbable iron
 - During stages of high iron demand
- These groups correspond to **children, adolescents, and women of reproductive age, in particular during pregnancy**

Symptoms of Anemia



Consequences of IDA in pregnancy and postpartum



- Consequences of IDA in pregnancy:
 - Chronic placental insufficiency¹
 - Pre-eclampsia²
 - Increased cardiac failure and related death³⁻⁵
 - Risk of severe maternal morbidity or mortality after postpartum haemorrhage



- Consequences of postpartum IDA:
 - Reduced milk production, shorter lactation periods⁶
 - Postpartum depression, emotional instability⁷
 - Impaired physical function⁸⁻⁹

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 7. Breyman & Huch. *Anaemia in pregnancy and the puerperium*. UNI-MED Verlag AG, Bremen 2008. 8. Corlett et al. *J Nutr* 2003;133:4139-42.
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Consequences of maternal IDA for the foetus



- Hb levels <9 g/dL increase risk of:¹⁻⁵
- Miscarriage
 - Low birthweight/small for gestational age
 - Pre-term delivery if anaemia present in early pregnancy

- Hb levels <6 g/dL associated with:⁶
- Chronic placental insufficiency

- Low Hct (<29%) associated with:⁷
- Medical abnormalities
 - Growth retardation
 - Foetal death
 - Rupture of foetal/egg membrane¹

Hct, haematocrit
 1. Breyman C. *Fetal Matern Med Review* 2002;13:1-29. 2. Allen L. *Nutr Rev* 1997;55:91-101. 3. Murphy JF et al. *Lancet* 1986;1:962-5.
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 7. Gam GM et al. *Sem Perinatol* 1993;5:155-62.

How to diagnose ID/IDA¹

Parameter	Description ¹	Normal range	ID	IDA
Haemoglobin (Hb) (g/dL)	Marker of erythrocyte iron	12.0–15.8	– (No decline in Hb levels observed in ID)	<12.0 (♀) ² <13.0 (♂) ²
Serum ferritin (SF) (ng/mL)	Marker of iron stores	10–150	<20–50 <100 (Inflammation)	–
Transferrin saturation (TSAT) (%)	Measure of mobilized (functional) iron available for red cell production	20–45	<20 ³	–
Soluble transferrin receptor (sTfR) (mg/L)	Indicator of changes in iron kinetics, not influenced by infections	1.9–5.0	↑ ⁴	↑ ⁴

- SF is the most accurate test for diagnosing ID in the absence of inflammation⁵
- sTfR may be useful for diagnosing ID in inflammation⁴

Management of IDA

- Four principle strategies for correcting Iron deficiencies in populations are:
 - Education Combined With Dietary Modification
 - To Improve Iron Intake And Bioavailability
 - Iron Supplementation (Provision Of Iron, Usually In Higher Doses, Without Food)
 - Iron Fortification Of Foods And New Approach Of Biofortification



Iron Supplementation

- Nutritional deficiency is the commonest cause of IDA in developing countries
- Iron supplementation is the commonest method to treat IDA in case of deficiencies
- Iron supplementation can be given as oral or parenteral

Click to add text



Is there is any therapy that can addresses the ID better than conventional oral iron therapy before opting for IV Iron?

The Answer Is Heme Iron

A New Paradigm In The Treatment Of ID & IDA

Summary

- Anemia is defined as a decrease in the total amount of hemoglobin or the number of red blood cells
- Anemia is a major health problem in India commonly occurs in pregnant women
- Current treatment options for the IDA has many limitations like adverse-effect, compliance, bioavailability problems

Case report

Dr Nirmal Kumar

Senior Specialist Orthopaedics

Gandhi Nagar Hospital,Ranchi

Total Hip Replacement For Fracture Neck Femur In An Elderly Lady With Bilateral Protrusio Acetabuli –CHALLENGES FOR A PROBLEM IN DEPTH

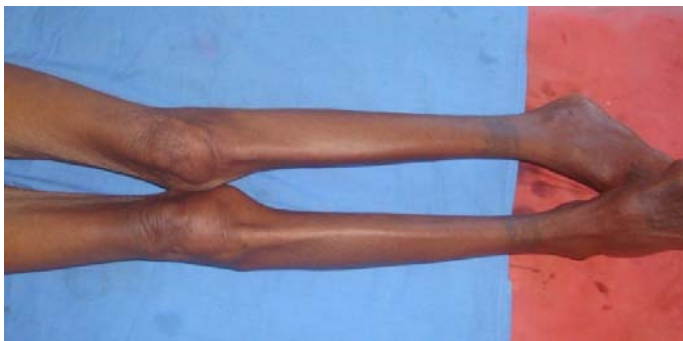
DESCRIPTION.

Protrusio is often seen bilaterally and in younger patients. In this case report I mention a challenging scenario of fracture neck femur in an elderly anaemic and osteoporotic patient with severe bilateral protrusio acetabuli.

i A 78-year-old woman presented with a history of severe pain left hip for 3 weeks. For the past 10 years, she was having difficulty in standing and walking with 'noises' coming from both hip joints and progressive restriction of both hip movements. An X-ray of the pelvis (anteroposterior view) showed severe bilateral hip arthritis with migration of the femoral head (L>R) into the pelvis (protrusio acetabuli) and fracture neck femur left with proximal migration of femur.

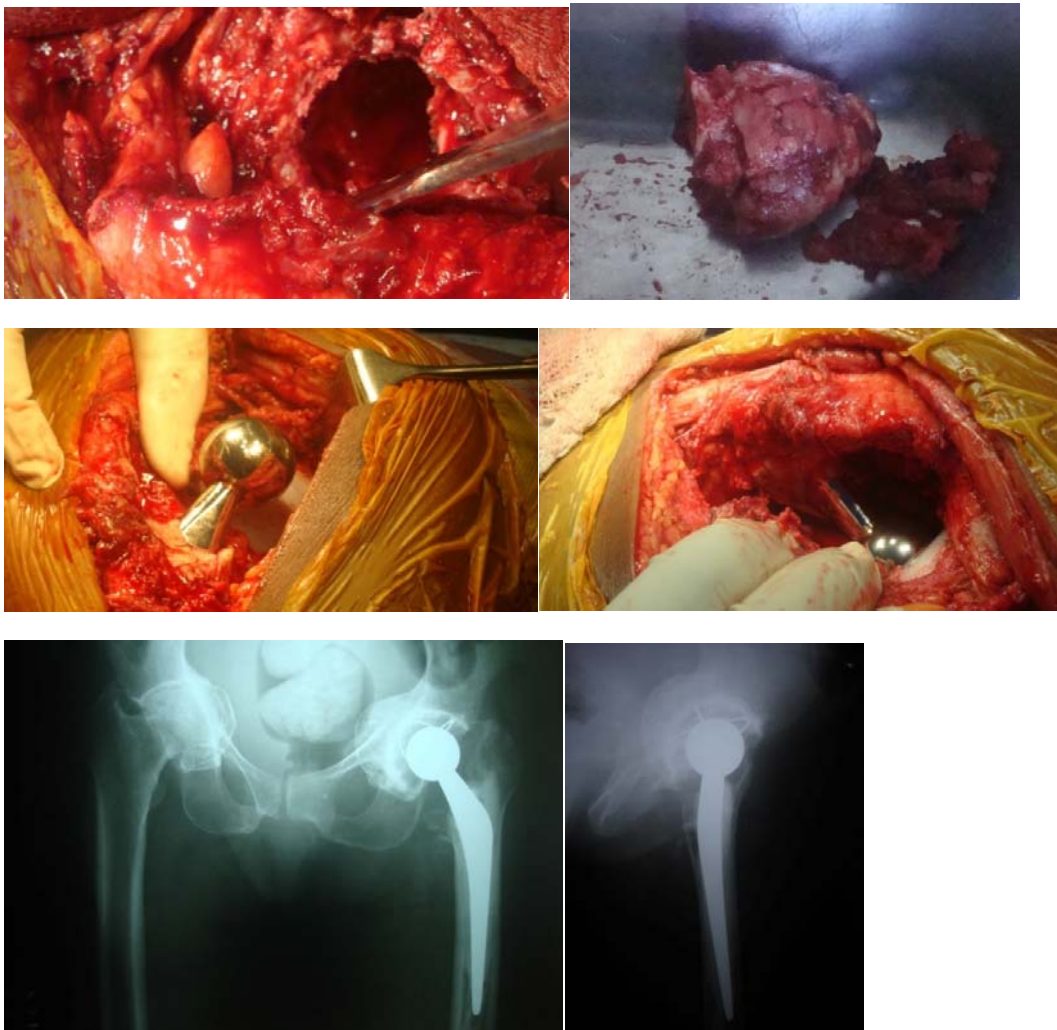


**AP & Lateral
Xrays-Pre op**



**Pre op-Clinical
photograph**

She was offered bilateral total hip replacement surgery. Patient agreed for surgery only on acutely painful side that was the left side where she had sustained fracture neck femur. The patient was found to be anaemic with Hemoglobin of 8.5gm%. Rest of investigations including calcium profile were found to be normal. Total Hip replacement was performed 2 months ago.



From Top Left-Acetabulum deep with deficient medial wall, retrieved head, femoral stem and acetabular cup (before final hip reduction), femoral stem and acetabular cup (after final hip reduction).

The surgery was performed as a single-stage procedure using cemented hip prosthesis on both sides, where a cemented femoral stem and a cemented cup were used with impaction bone grafting of the acetabulum. . Surgery was performed with the patient in the lateral position, through a posterolateral approach. The retrieved femoral head was cut into slices using a power saw. The bone slices were then morsellised into 8 mm to 10 mm-sized pieces using a bone cutter. The acetabular floor was prepared using a curette while avoiding penetration of the soft, deficient medial wall until a bleeding bony surface was obtained. The periphery of the acetabulum was reamed starting with larger sized reamers. The morsellised graft was then introduced into the prepared acetabulum and impacted against the floor using hemispherical impactors and reverse reaming. Vigorous impaction was avoided to prevent fracturing the medial acetabular wall, as the patient was osteoporotic.

She is now pain free and is able to walk and stand comfortably.



2 months post op

Clinical photograph

Discussion

Protrusio acetabuli is a condition of the hip where there is medial displacement of the femoral head into the pelvis and the medial aspect of the femoral head lies medial to the ilioischial line. Protrusio acetabuli could be primary or secondary. Bilateral condition could be found in conditions such as rheumatoid arthritis, Paget's disease, ankylosing spondylitis, Marfan's syndrome and osteomalacia. The joint replacement surgery is usually necessary in cases of severe pain or substantial joint restriction owing to secondary hip arthritis.

Several techniques have been previously described in the surgical management of protrusio. These include using cemented acetabular components with cement alone or in association

with morsellised bone to reconstruct the acetabulum. However, cement alone has a high incidence of migration and high rates of loosening have been reported in the medium term for bone graft used with cement. While the use of cemented acetabular components in younger patients may result in early loosening and high revision rates during the first decade, it shows excellent results in elderly patients with low demand activities.

Impaction bone grafting, along with a cemented cup for acetabular reconstruction in protrusio during THR was first proposed by Slooff et al. A recent 20- to 28-year review of their series of 42 cases (all performed in patients aged < 50 years) by Busch et al reported a survivorship of 73% at the end of 20 years. Similarly, Rosenberg et al reported 90% survival in 36 hips at a mean follow-up of 12 years in rheumatoid patients with protrusio where acetabular reconstruction was performed using impacted morsellised bone graft and cemented cups.

Learning points

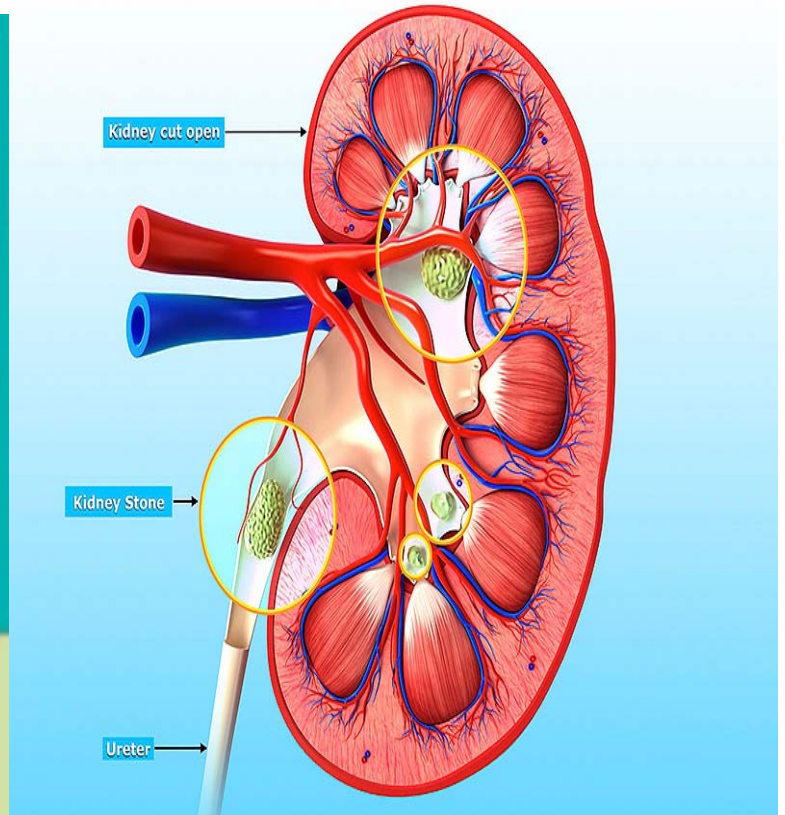
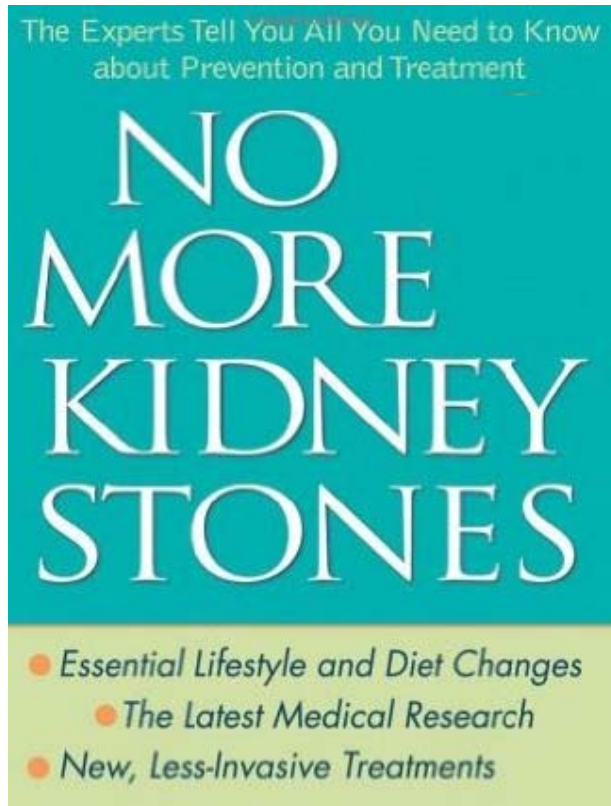
- Protrusio acetabuli is a condition where there is medial migration of the femoral head into the pelvis.
- Secondary to several disease one can present with bilateral protrusio acetabuli of the hip.
- THR in protrusion is technically demanding due to associated significant medial and proximal migration of the centre of the joint, deficient bone medially and reduced bony support to the acetabular component peripherally
- Use of morsellized bone graft from retrieved head of femur along with cement is an excellent way of acetabular component fixation in THR in elderly patients with low demand activities.

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- 3 Ranawat CS, Dorr LD, Inglis AE. Total hip arthroplasty in protrusio acetabuli of rheumatoid arthritis. *J Bone Joint Surg Am* 1980;62:1059–65.

PREVENTION AND TREATMENT OF KIDNEY STONES

**DR. SUSHIL KUMAR,
DY CMO, HOD SURGERY**



Symptoms	Treatment	Prevention
<ul style="list-style-type: none"> ● Fluctuating and excruciating pain in the abdomen, groin and kidney area. ● In many cases, urine gets blocked and patients suffer from back pain. ● Frequent urinary infection and abnormal urine colour. ● Chills, fever, nausea and even vomiting. ● Blood from urine. 	<ul style="list-style-type: none"> ● Stones less than one cm pass through urine. ● Bigger stones are treated by shock therapy which breaks the stones. ● Larger stones are treated by endoscopy. ● Last resort is open surgery. 	<ul style="list-style-type: none"> ● Consumption of water, at least 8 to 10 glasses, is mandatory. ● Avoid caffeinated drinks, cool drinks, tea, etc. ● Stop taking oxalate rich foods like spinach, cabbage, chocolate, tomato. ● Limit the amount of the salt intake.

13 WEIRD RISK FACTORS FOR KIDNEY STONES



1. Not Enough Calcium

Most kidney stones are made out of [calcium](#), so it would seem that consuming too much could be problematic. On the contrary, people eating a low-calcium diet are more likely to develop kidney stones than those consuming more calcium.⁴

It turns out that calcium in your digestive tract binds to chemicals called oxalates from your food, preventing them from entering your bloodstream and urinary tract where they may form kidney stones.⁵

It is important to note that it is the calcium from *foods* that is beneficial – not calcium supplements, which have actually been found to increase your risk of kidney stones by 20 percent.⁶

2. An Obsession with Leafy Greens

Leafy greens, particularly [spinach](#), are high in oxalates. These chemicals bind with calcium and should be excreted via your urinary tract, but if their concentrations become elevated they can concentrate in your urine and form kidney stones.

Leafy greens are clearly among the healthiest foods you can eat, but if you struggle with kidney stones you might want to swap higher oxalate greens like spinach, for lower-oxalate options, like kale.

3. Too Much Processed Salt

[Salt, particularly unprocessed natural varieties, has been unfairly targeted](#) as a root source of chronic disease. However, excess sodium intake *can* increase the amount of calcium excreted by your kidneys, which in turn may increase your risk of kidney stones.

You needn't shun a sprinkle of unprocessed salt added to your meals here and there. Rather, cut out the majority of processed foods in your diet, which is where most processed salt is hidden.

4. Too Little Citrus (and Veggies of All Kinds)

Citrus fruits contain citrate, a compound that may lower your risk of kidney stones. Simply adding a squirt of lemon or lime to your water may therefore be helpful, although you can also increase your intake of fruits and vegetables across the board.

One study found people who normally avoided produce could decrease levels of kidney-stone-causing chemicals in their urine by increasing their produce intake for one month.⁷ Eating plenty of vegetables helps ensure you're getting enough magnesium, which is also beneficial.

[Magnesium](#) plays an important role in your body's absorption and assimilation of calcium, as if you consume too much calcium without adequate magnesium, the excess calcium can actually become toxic and contribute to health conditions like kidney stones.

5. Too Much Iced Tea

Black tea is a rich source of oxalate, so overconsumption may increase your risk of stone formation. Earlier this year, the *New England Journal of Medicine* reported the case of one 56-year-old man who was drinking 16 eight-ounce glasses of iced tea daily. He was admitted to the hospital for kidney failure and was found to have “abundant calcium oxalate crystals” in his urine.⁸

6. Drinking Soda

[Drinking soda](#) is associated with kidney stones, possibly because the phosphorus acid it contains acidifies your urine, which promotes stone formation. In addition, one South African study found that drinking soda exacerbates conditions in your urine that lead to formation of calcium oxalate kidney stone problems.⁹

The sugar, including fructose (and [high fructose corn syrup in soda](#)), is also problematic. A diet high in sugar can set you up for kidney stones, since sugar upsets the mineral relationships in your body by interfering with calcium and magnesium absorption.

The consumption of unhealthy sugars and soda by children is a large factor in why children as young as age 5 are now developing kidney stones. Sugar can also increase kidney size and produce pathological changes in your kidney, such as the formation of kidney stones.

In one study, those with kidney stones who eliminated soda from their diet lowered their risk of recurrence by about 15 percent.¹⁰

7. Your Parents

If you have a family history of kidney stones, your risk is increased as well. It's thought that the inability to efficiently absorb oxalate may be an inherited trait.

8. Inflammatory Bowel Disease (IBD)

If you have IBD, including Crohn's disease or ulcerative colitis, you're at an increased risk of kidney stones.¹¹ This could be because such conditions often cause diarrhea, which increases your risk of becoming dehydrated – a major risk factor for kidney stones.

9. Recurrent Urinary Tract Infections (UTIs)

10. Laxative Abuse

Overusing laxatives interferes with your body's ability to absorb and utilize nutrients, and may lead to an electrolyte imbalance, increasing your risk of kidney stones. Laxative abuse can also cause dehydration, another kidney stone trigger.

11. Migraine Medication

12. Obesity

13. Weight Loss Surgery

किडनी की पथरी कारण और बचाव किडनी हमारे शरीर का एक महत्वपूर्ण अंग है। हालांकि हर व्यक्ति को 2 किडनी भगवान से उपहार स्वरूप मिला है परन्तु 350 व्यक्ति में एक को सिर्फ एक ही किडनी है।

इसका मुख्य काम हमारे शरीर में चय-अपचय (Metabolism) के द्वारा उत्पन्न विकार (Waste) को मूत्र के साथ बाहर निकालना है।

मूत्र (Urine) एक बहुत ही Complex Solution है जिसमें सैकड़ों प्रकार (Hundreds) के रसायनिक पदार्थ हैं जो एक-दूसरे की घुलनशीलता पर प्रभाव डालती है। अतः किसी एक रसायनिक पदार्थ (eg. Oxalate/urate/citori) की कमी या अधिकता दूसरे की घुलनशीलता (Solubility) पर गंभीर प्रभाव डालती है।

फिर भी पत्थर (पथरी) बनने के लिए सबसे महत्वपूर्ण कारक जल है।

प्रश्न :- मुझे कितना पानी पीना चाहिए।

उत्तर :- (1) जल की मात्रा इतनी होनी चाहिए कि मूत्र का रंग जल से मिलता जुलता हो।

(2) चौबीस घंटे में 2 ½ लीटर (2.5 liter) पेशाब होना चाहिए।

जल की मात्रा कम होने से धुला हुआ पदार्थ (Solute) ही नीचे बैठकर पत्थर का निर्माण करता है।

दूसरी महत्वपूर्ण बात है मूत्र में उपलब्ध Citrate की मात्रा/नींबू/नारंगी/मौसम्बी जैसे Citrous फलों में साइट्रेट की मात्रा अधिक रहती है जो पत्थर बनने की प्रक्रिया को रोकती है।

पथरी कई प्रकार के होते हैं जैसे Oxalate Stone Phosphate Stone, Urate Stone इत्यादि।

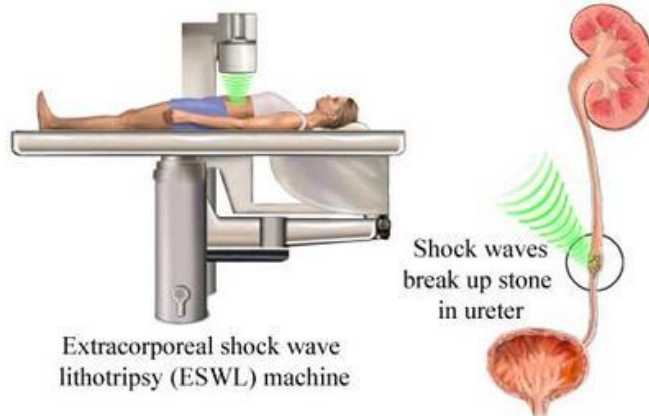
पथरी पेशाब के बहाव को अवरुद्ध कर किडनी को हानि पहुंचाता है। अतः एक बार पथरी बन जाने पर फिर इसके निदान पर ध्यान देना चाहिए।

अत्यंत छोटे पत्थर (3-4 mm) तो स्वतः भी निकल सकते हैं परन्तु बड़ा हो जाने पर स्वतः निकलने का Chance काफी कम हो जाता है।

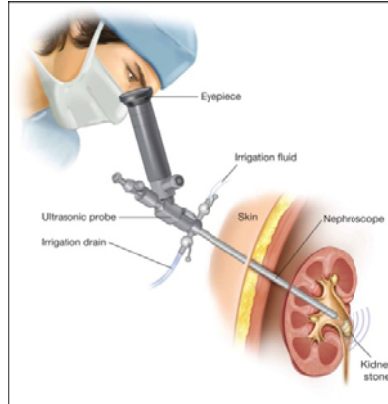
बड़े पत्थरों जो एक से 0 मीटर जो बड़े हो उनका उपचार निम्नलिखित तरीकों से किया जा सकता है-

1. पारंपरिक तरीकों से जैसे चीरा लगाकर किडनी से पथरी को निकाला जा सकता है। अब यह तरीका बहुत कम प्रयोग में लाया जाता है।
2. ESWL- 80 के दशक में रामवाण की तरह दिखने वाला यह तरीका असल में अब उतना कारगर नहीं रहा।

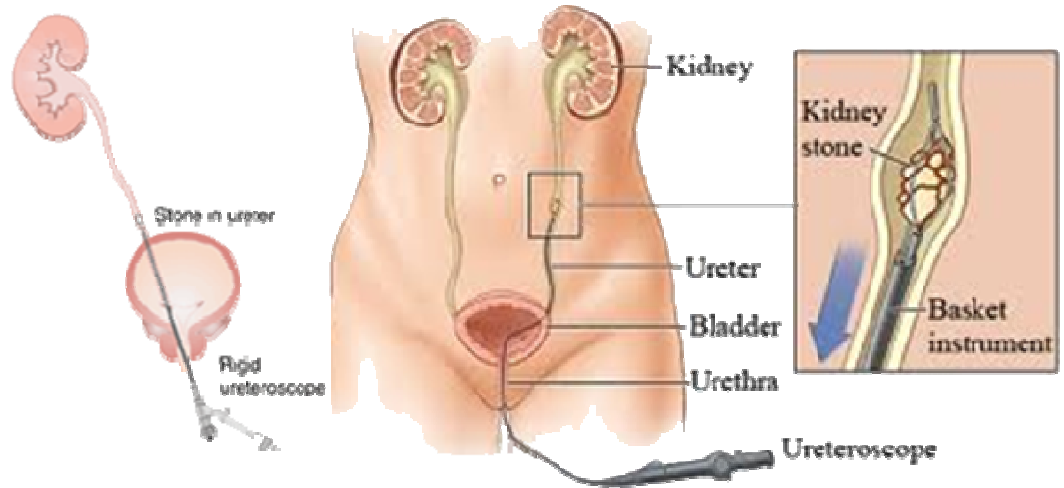
3.



4. PCNL- यह तरीका अभी सबसे ज्यादा कारगर है। इस तरीके में किडनी में 7-8 मी0 का छोटा सा छेदकर एक नली (Amplatz Sheath) लगाकर पथरी को छोटे-छोटे टुकड़े में तोड़कर निकाला जाता है। Stone Clearance Rate इस विधि में अभी ज्यादा है (80-95%)



5. R.I.R.S. (Retrograde Intra Renal Surgery) किडनी में मौजूद छोटे पथरों के लिए यह तरीका कारगर है जिसमें Flexible Uretero Scope और लेजर (Holmium Laser) के द्वारा पथरी को चूर-चूर कर निकाला जाता है।



SCHOOL SCREENING PROGRAMME

SCHOOL SCREENING PROGRAMME



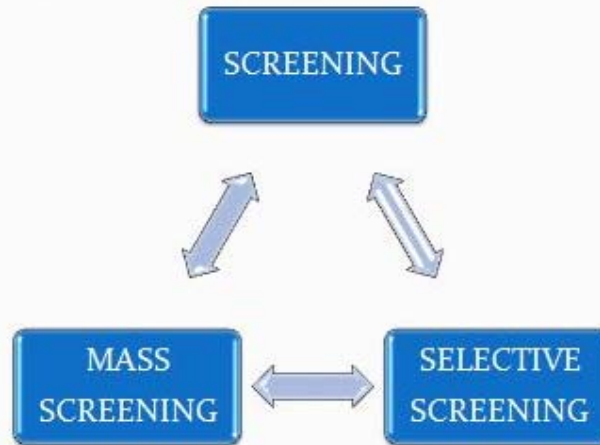
Dr. BHARAT SINGH
M.S.(EYE)
CENTRAL HOSPITAL
NAISARAI
CCL RANCHI

WHAT IS SCREENING???

- Testing population to identify early disease in asymptomatic individuals.



TYPES OF SCREENING



- School Health Programme Must include .
- Involvement of specialist of Eye, ENT, Dental, Skin & Pediatrician.



ORGANIZING SCHOOL SCREENING PROGRAMME

- Listing of all school in given geographical area.
- Contacting principals and getting permissions.
- Transport facility
- Handouts for duty
- Arranging proper timetable for each school.
- Eye screening kit
 - Vision Charts
 - Torch
 - Ophthalmoscope and retinoscope
 - Color vision chart
 - Trial frame/pin hole and occlude



Material and Methods:

- School children from 05 schools with age ranging from 3 to 16 years were screened.
- Sex ratio:
 - Male- 1800
 - Female - 703
- Each child underwent :



NEED FOR SCHOOL SCREENING

- Children are precious for families and the nation.
- Children of school going age(5-15) constitute 25% of India's population.
- They don't complain of defective vision.
- They may not even realize that there is problem.



CHILDHOOD BLINDNESS

DEFINITIONS:

CHILDHOOD

- An individuals aged less than 16 years

BLINDNESS

- Corrected VA < 3/60
- Central visual field < 10 degree

Health Education

- For teachers, school staff & children.
- Importance of eye care.
- Demonstrating signs & symptoms of common eye conditions like vit. A deficiency, blepharitis, refractive error etc.
- Classroom illumination.
- Role of nutrition.
- First aid & ocular emergency.



PROJECT REPORT

SR. NO.	SCHOOL NAME	STUDENTS SCREENOUT	STUDENTS REFERED
1.	AWASISA VIKLANG SCHOOL	66	25
2.	RAJKIYA MADHYA VIDYALAYA	710	104
3.	CHAWANI MADHYA VIDYALAYA	651	96
4.	SARASWATI SISHU VIDYA MANDIR	521	54
5.	RAMPRAKASH CHANDRAMANI SARASWATI VIDYA MANDIR	555	72

Colour Vision Defects

- Tested with the Ishihara's pseudo isochromatic plates in day light at the normal reading distance.
- Children below 6 years age were asked to trace lines of the plates.
- Above 6 years identify numerals.

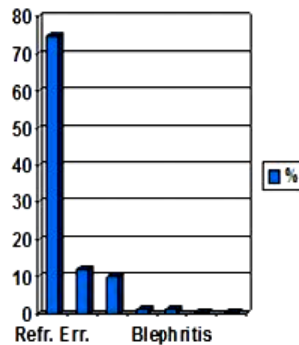


DATA ANALYSIS

TOTAL NO. OF SCHOOLS SCREENOUT	TOTAL NO. OF STUDENTS SCREENOUT	TOTAL NO. OF STUDENTS REFERED
05	2503	351

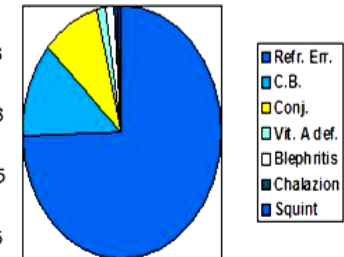
Ocular problems (in %) found in students & treatment given :

- Refractive errors 75%
- Colour Blindness 12%
- Conjunctivitis 10%
- Vitamin A Deficiency 1%
- Blepharitis 1%
- Chalazion & Stye 0.5%
- Squint 0.5%



Ocular problems (in No.) found in students & treatment given :

- Refractive errors 261
- Colour Blindness 43
- Conjunctivitis 33
- Vitamin A Deficiency 05
- Blepharitis 05
- Chalazion & stye 02
- Squint 02



SUMMARY

- It is Low cost, Non-invasive, Rapid, Reliable and Acceptable method.
- Remember "An ounce of prevention is worth a pound of cure."
- Similar to "childhood immunization", a concept of visual acuity is needed.
- **Nutritional tip** - All green vegetable and yellow, red fruits are rich source of vitamin A and caretenoids. Children should be encouraged to supplement their diet with these.

FUTURE SCOPE

School Kits distributed by us must have :

- A six meter (20 feet) measuring tape.
- Standard vision screening "E" card. The conventional charts are easily memorized by the children.
- Referral card for children with suspected poor vision.
- Education material.

Provision of free glasses to students from poor socioeconomic strata.

- Non arrangement of spectacles is a major drawback of school programmes.



EM Critical Care

UNDERSTANDING AND CARING FOR CRITICAL ILLNESS IN EMERGENCY MEDICINE

Adult Trauma Alert Criteria

The presence of any of the 4 listed items below requires Trauma Alert activation:

- 1. Meets color coded triage system (any one RED, or any two BLUE criteria met)
- 2. GCS \leq 12 (GCS is a stand-alone criteria, even if color coded criteria not met)
- 3. Meets Local Criteria: **High Voltage Electrical Injury (>1000 volts)**
- 4. Patient does not meet any above criteria but, in the judgement of the paramedic, should be transported as a Trauma Alert. Document reason on run report.

DR SUMIT KUMAR, SR MO, GNH

DIP. IN EMERGENCY MEDICINE, RCGP, UK

Component	BLUE Criteria	RED Criteria
Airway	Respiratory rate \geq 30	Active airway assistance ¹
Circulation	Sustained heart rate \geq 120	Any of the following: <ul style="list-style-type: none"> • Lack of radial pulse with sustained heart rate \geq 120 • Blood Pressure < 90 mmHg
Best Motor Response (Glasgow Coma Scale)	BMR of 5	Any of the following: <ul style="list-style-type: none"> • BMR < 4 • Suspicion of spinal cord injury: <ul style="list-style-type: none"> • Paralysis • Loss of sensation
Cutaneous	Any of the following: <ul style="list-style-type: none"> • Soft tissue loss² • GSW to extremity 	Any of the following: <ul style="list-style-type: none"> • 2nd or 3rd degree burns > 15% TBSA • Amputation proximal to wrist or ankle • Penetrating injury to head, neck or torso³
Long Bone Fracture ⁴	Any of the following: <ul style="list-style-type: none"> • Single fracture site due to MVC • Fall from \geq 10 feet 	Fracture or 2 or more long bones ⁴
Age	55 years or older	N/A
Mechanism of Injury	Any of the following: <ul style="list-style-type: none"> • Ejection from a vehicle⁵ • Deformed steering wheel⁶ 	N/A

1. Airway assistance beyond administration of oxygen
2. Major degloving injuries, or major flap avulsion (>5 in.)
3. Excluding superficial wounds in which the depth of the wound can be determined
4. Longbones include humerus, radius+ulna, femur, tibia+fibula
5. Excluding motorcycle, moped, all terrain vehicle, bicycle, or open body of a pickup truck
6. Only applies to driver of vehicle

EMERGENCY TRAUMA ASSESSMENT

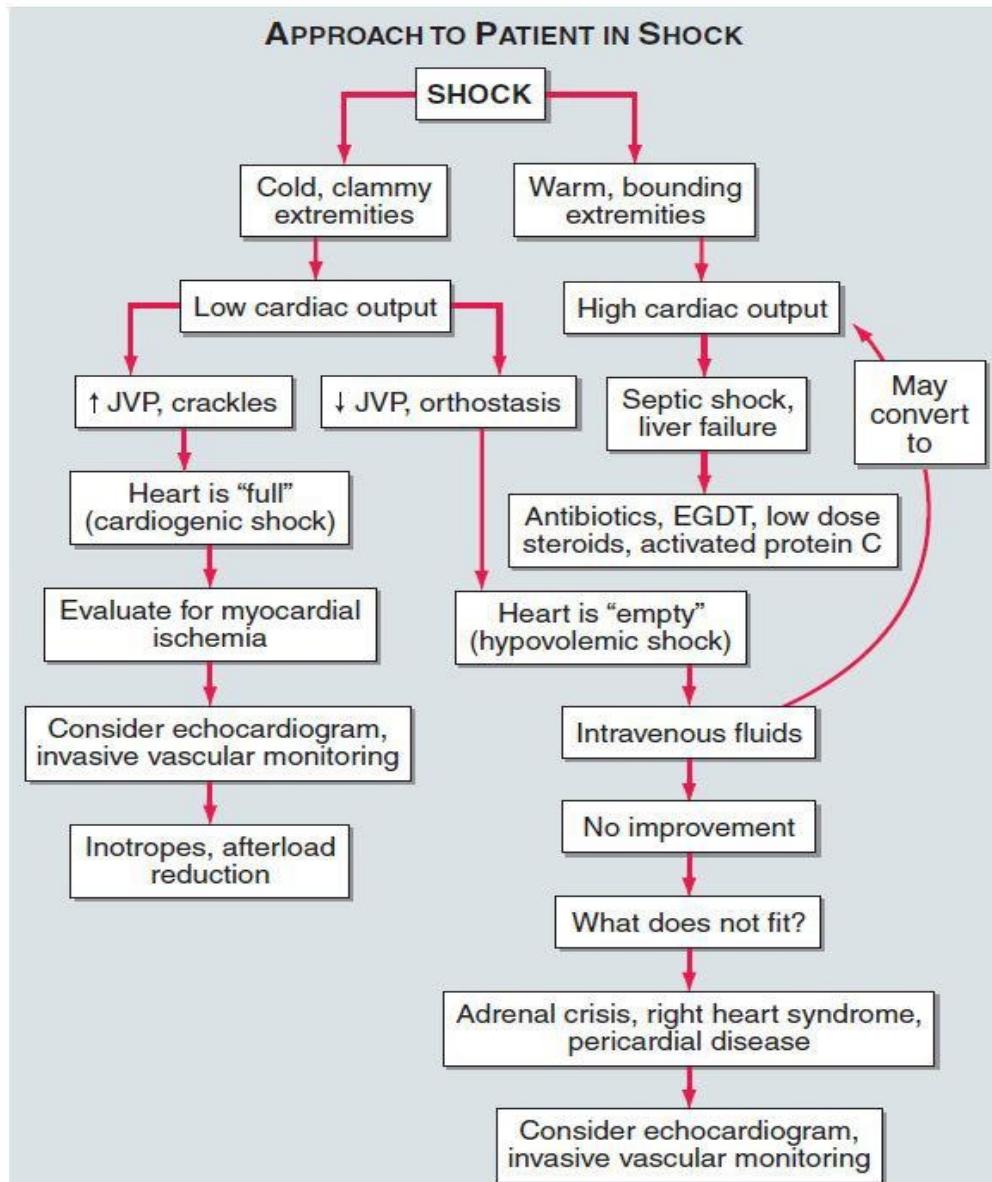


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A- Airway maintainance with Cervical spine protection
B- Breathing and ventillation
C- Circulation and Haemorrhage Control
D- Disability; Neurologic status
E- Exposure/ Environment

Management of severe injuries during the golden hour

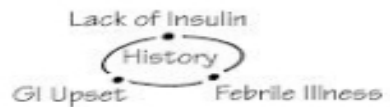
To do no Harm



DIABETIC KETO-ACIDOSIS

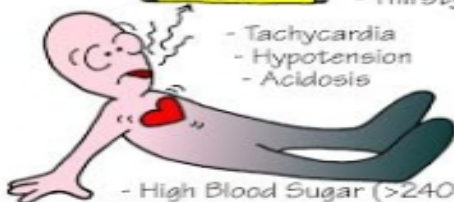


Onset Over
4-10 Hours



- Breath Smells Like... Juicy Fruit Gum
- Kussmaul Respirations
- Thirsty, Dehydration

- Tachycardia
- Hypotension
- Acidosis



- High Blood Sugar (>240 mg/dl)
- Hyperkalemia
- Polyuria



Hydration
Insulin
Electrolyte
Replacement

WORLD ASTHMA DAY

3rd May



GO GREEN! LEAVE TOBACCO TODAY!