

# What's Up? @St John's Hospital

Issue 35, November 2<sup>nd</sup>, 2019



Shower of flowers. PC: Dr. Rakesh Ramesh

**World Stroke Day**

October 29



— 29th October —  
World  
**PSORIASIS**  
Day

  
• **WORLD** •  
**OSTEOPOROSIS**  
DAY

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St John's National Academy of Health Sciences  
St John's Medical College Hospital, Bengaluru

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\* We now present a fully interactive menu. It works best with Adobe reader application (on computers, mobile phones and tablets)



# MESSAGE FROM THE EDITORIAL TEAM

ಎಲ್ಲರಿಗೂ ನಮಸ್ಕಾರ!

ಎಲ್ಲರಿಗೂ ಕನ್ನಡರಾಜ್ಯೋತ್ಸವದ ಹಾರ್ದಿಕ ಶುಭಾಶಯಗಳು! The month of October is coloured with various health awareness days. Whole month is observed as 'Breast cancer awareness month'. There are days designated for stroke, osteoporosis, psoriasis and mental health.

So here we present to you all thirty fifth issue of "What's Up? @ St John's Hospital" magazine today. This issue highlights World stroke day, World Psoriasis day and World Osteoporosis Day. Our sincere thanks to our dear friends from Department of Neurology, Radiology, Dermatology and Endocrinology for providing write ups for these health related days.

In view of breast cancer awareness month, we bring to you stories of two staff of St. John's who have bravely fought this disease and leading normal lives now in the section of 'Survivors Corner'. We bust the myth about chapatis in the section of 'St. John's Watchdog'. Don't miss reading these sections.

Please feel free to communicate with us to publish your achievements. Feedback on any section of the magazine is welcome. Happy Reading!!

**Editorial Team**

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# UPDATES THIS WEEK

## WORLD STROKE DAY

29<sup>th</sup> October 2019

- *Dr.Sai Kanth Reddy (Assistant Professor, Department of Radiology) & Dr. Thomas Mathew (Professor and Head, Department of Neurology)*



ON AN AVERAGE IN INDIA  
A STROKE OCCURS EVERY 40 SECONDS!  
AND EVERY 4 MINUTES...  
SOMEONE DIES OF STROKE.



HALF OF ALL STROKES IN INDIA,  
CAN BE ATTRIBUTED  
TO HIGH  
BLOOD PRESSURE?



ONE FOURTH OF ALL STROKES  
IN INDIA, OCCUR IN PEOPLE  
WHO HAVE ALREADY HAD A  
SMALL STROKE?



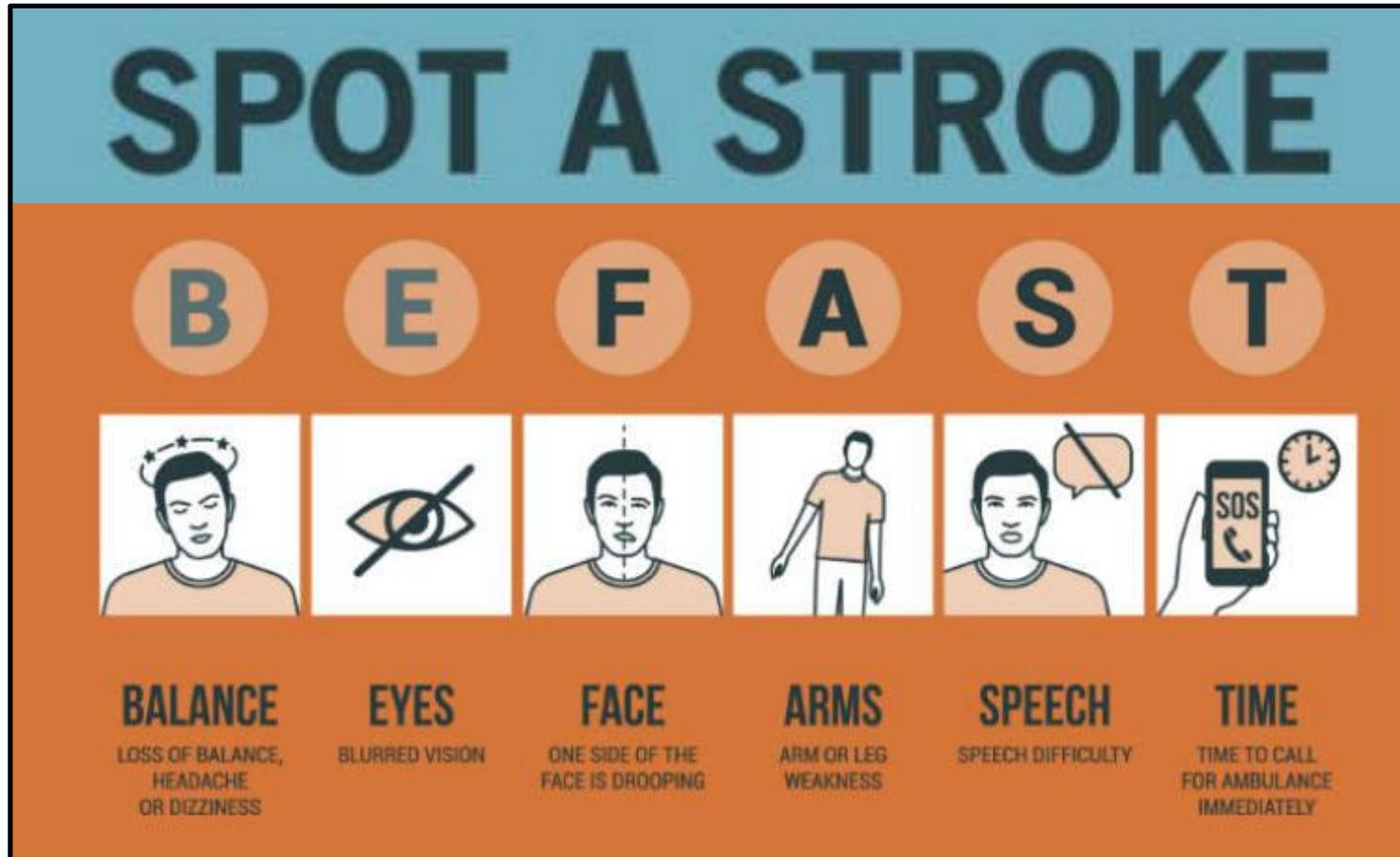
Stroke continues to be a raising global burden and is one of the major causes of morbidity and mortality worldwide. As per the 2013 global burden of disease (GBD) report, a greater than 3-fold increase in the burden of stroke was reported over the past two decades. A total of 11.6 million incident ischemic stroke cases were reported worldwide in the past two decades, of which one third occurred in those less than age 65. “It is important to know that 90% of strokes are linked to 10 modifiable risk factors including hypertension, smoking, obesity, physical inactivity, and unhealthy diet”.

**STROKE IS A TREATABLE DISEASE IF IT IS IDENTIFIED EARLY**

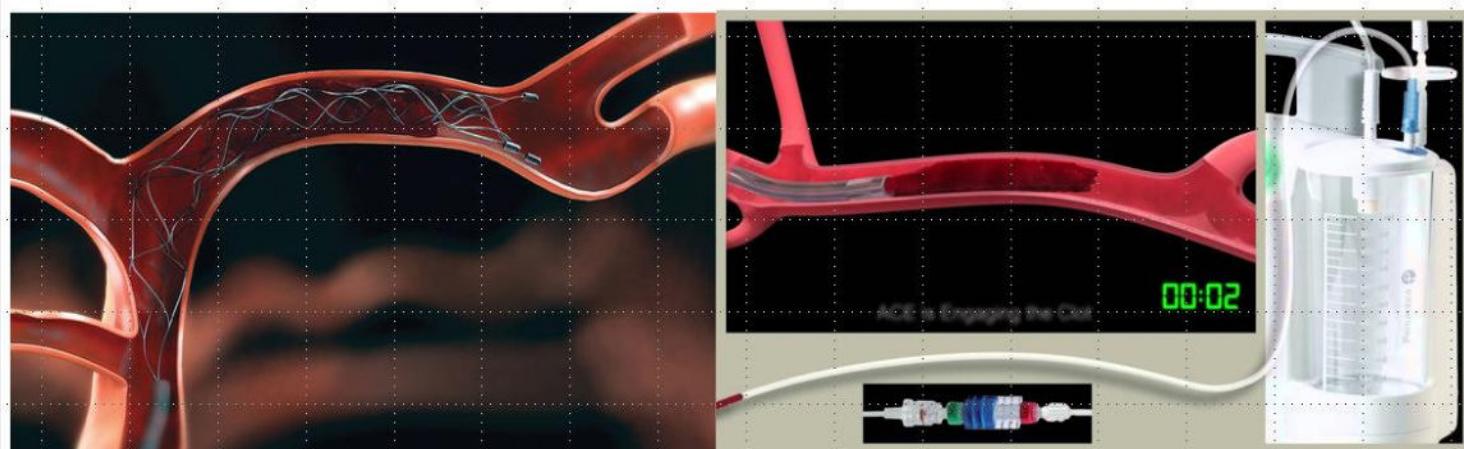
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# WORLD STROKE DAY



There is a paradigm shift in stroke therapy in recent years which includes newer generation of thrombolysing agents and advanced Mechanical thrombectomy devices.



Despite the revolution in stroke care, where the IV thrombolysis window has been extended to 4.5 hours and mechanical thrombectomy has been extended to 24 hours for selected patients, access to these lifesaving and disability-preventing therapies in many developing nations is still far from reach.

Quality care needs to be provided timely by competent personnel and teams across the whole pathway in an organized manner. This kind of access to adequate stroke expertise should be independent of region, time of day and socio-economic status.

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# WORLD STROKE DAY

To ensure these developments are more evenly distributed, we will require national, regional and global efforts to increase awareness, make available quality acute stroke treatment, primary and secondary prevention and rehabilitation.”

St. Johns Hospital is one of the few centers in the country equipped with state of art Phillips Allura Xper FD 20-15 Biplane cathlab with round the clock Neurology, Neuroradiology, Neurosurgery services in providing advanced stroke treatment in the country.



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# WORLD PSORIASIS DAY

## 29<sup>th</sup> October 2019

- *Dr. Diana James Elizabeth (Senior Resident Dermatology)*

World Psoriasis Day, observed on October 29, shines a light on challenges faced by those suffering from psoriasis and psoriatic arthritis. Psoriasis is a disease that results from an overactive immune system and is evidenced by rashes on the skin. More than 125 million people around the world suffer from psoriasis or psoriatic arthritis.

World Psoriasis Day helps disseminate important information that can help ease the pain of those living with psoriasis. Through events such as runs and walks, World Psoriasis Day brings together psoriasis sufferers and their friends and family to show support for expanding treatments.

Through outreach to potential supporters, World Psoriasis Day raises funds for new research and expanded treatment.

### **HISTORY OF PSORIASIS**

The Greeks coined the term “psora” which meant to itch. In the early days, leprosy and psoriasis were grouped together as one disease. It was only in the 18<sup>th</sup> century that Robert Willan and Thomas Bateman categorised them as separate entities. In the 1960’s it was found that psoriasis had an autoimmune basis and over the next few decades phenomenal improvements have been attained in the understanding and treatment of the disease.



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# WORLD PSORIASIS DAY

**PSORIASIS : LETS FACE IT**

**Treat Psoriasis Seriously**

It's a chronic autoimmune disease  
More than 12.5 Crore people affected worldwide.  
Nearly 3% of world population affected.

**Look for..**  
Red rash  
Flaky skin with white scales  
Joint swellings

**TRIGGERS**  
Smoking  
Injury  
Infections  
Alcohol  
Stress  
Drugs

**World Psoriasis Day October 29**

**#ihopepso**

**Psoriasis is not contagious**

**MYTHS**  
Curable  
Contagious  
Caused by poor diet  
Its just Dry skin

**TREATMENT OPTIONS**  
LIFESTYLE MODIFICATION  
Stress management  
Quit smoking  
TOPICALS  
Moisturizing skin  
Therapeutic agents  
PHOTOTHERAPY  
SYSTEMIC DRUGS

**Leave our prejudices at the door!!!! Psoriasis is more than skin deep..... Lets join our hands to support them**

World psoriasis day poster competition by IADVL: 1<sup>st</sup> prize awarded to Dr Vimal John and Dr Sherin Dominic, Post graduates, Department of Dermatology, SJMCH



# WORLD PSORIASIS DAY

## ETIOPATHOGENESIS

Psoriasis is a complex multifactorial disease with genetic and immune mediated components. Possible triggers include an infectious episode, traumatic insult, cold weather, stressful life event which incites an inflammatory response recruiting leukocytes and activated T-cells to the dermis and epidermis – these induce keratinocyte proliferation. Ultimately, a ramped up , dysregulated inflammatory process ensues with large production of various cytokines (TNF- $\alpha$ , IFN- $\gamma$ , IL-12). Epidermal hyperplasia leads to accelerated cell turnover rate( 24 days shortened to 3-4 days) which results in increased scaling, flaking and improper maturation of skin.

## CLINICAL FEATURES OF PSORIASIS

Skin is usually the first site to be affected. Plaque psoriasis is characterised by raised erythematous lesions with silvery white scaling. They are itchy, bleeds on scratching and are noted over the extensor surfaces like elbows, knees, lumbosacral region, shins of the legs etc

The other variants include guttate or small papulo-plaque raindrop like eruptions on the trunk and the inverse type occurring in the flexures. Severe variants include Erythrodermic type where more than 90% of the body becomes erythematous and scaly and Pustular type where crops of pustules develop associated with fever and systemic symptoms.

Scalp, nail and joint are other sites where psoriasis can affect.

## TREATMENT OPTIONS PROVIDED BY THE DEPARTMENT

Psoriasis can be treated by topical medicines, phototherapy and/or systemic drugs depending upon the severity of the disease. Regular use of moisturizers and managing the aggravating factors play an important role. Topical moisturizers, steroids, keratolytic agents, vitamin D analogues and immumomodulators are the chief treatment options in limited diseases. Tar based, ketoconazole and keratolytic based shampoos are helpful in scalp involvement. Phototherapy with PUVA, narrow band UVB or targeted therapies with excimer light or phototherapy are effective options.

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# WORLD PSORIASIS DAY

Systemic drugs such as methotrexate, acitretin, cyclosporin, apremilast are recommended in severe cases and extensive disease.

Biologics such as TNF- $\alpha$  inhibitors etanercept, infliximab, adalimumab and IL-17 inhibitor secukinumab are currently being used in cases which are unresponsive or difficult to treat. All medications should be taken under the supervision of a dermatologist and proper follow up with maintenance treatment is mandatory.

## **ACTIVITIES ORGANISED BY THE DEPARTMENT**

We have poster competition and display of these posters to the public on world psoriasis day. Pamphlet distribution regarding the disease and awareness education has also been done.

## **WORDS OF AWARENESS TO THE PEOPLE**

- Let us keep in mind and also educate whom we can that psoriasis is a controllable condition, though not curable.
- Even though genetic factors play a role in its pathogenesis, it is neither a hereditary disorder, nor a contagious disease.
- Improper or wrong treatments may render the disease unstable leading to severe complications.
- Newer treatments like biologics have enabled us to control the disease and greatly improve the quality of life of patients.



– 29th October –  
World  
**PSORIASIS**  
Day

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# KAYAKALP CERTIFICATE

## ST JOHN'S MEDICAL COLLEGE HOSPITAL

### 2019-2020

St. John's Medical College Hospital, is now certified with "KAYAKALP"

The NABH, Quality Council of India conducted a successful assessment at St. John's Medical College Hospital. The enthusiastic participation and coordination was duly appreciated, and St. John's was designated to comply with the Kayakalp Standards.

A congratulatory message was sent out by Rev. Fr. Pradeep Kumar Samad (Associate Director Hospital).



## Muttanallur Cancer Screening Camp

### 16<sup>th</sup> October 2019



St. John's Oncology Centre in collaboration with Department of Community Health conducted a Oral and Breast Cancer Screening Camp in Muttanallur on 16<sup>th</sup> October 2019

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# FUND RAISER

## 26<sup>th</sup> October 2019

### St. John's College of Nursing

A Fund raiser for a cause, to help the needy cancer patients was organised by St. John's College of Nursing, St. John's National Academy of Health Sciences in Main Auditorium on 26<sup>th</sup> October 2019. The occasion was graced by Rev. Fr. Jesudoss Rajamanickam (Associate Director Finance, SJNAHS)



# Interactive Fabric Block Printing

## 28<sup>th</sup> October 2019

### St. John's Oncology Centre

The students of International School, Bangalore, on account of Breast cancer awareness month organised Interactive Fabric block printing art for public on 28<sup>th</sup> October 2019 in St. John's Oncology Centre.



# Hands on Training in Intercostal Chest Tube Insertion 28<sup>th</sup> October 2019

## Department of Pediatric Surgery

The Department of Paediatric Surgery conducted Hands-on training session for the post-graduate residents in the Department of Paediatrics on the afternoon of 24th October 2019 at the Skills Lab, adjoining the C. G Hall.

The workshop was aimed at sensitizing and training the residents on the technique of intercostal chest tube insertion which is an important skill/tool for managing a variety of paediatric conditions especially in an emergency setting.

The session included a pre-test, didactic lectures outlining the British Thoracic Society guidelines (BTS Guidelines), demo video session, hands on training on mannequins followed by tips and tricks to troubleshooting and concluded with post test assessment and feedback.



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# FRIDAY CLINICAL MEETING

18<sup>th</sup> October 2019

## World Osteoporosis Day

### Department of Endocrinology

The department of Endocrinology organised Friday clinical meeting on Osteoporosis on 18th of October 2019 under the chairmanship of Dr.Vagesh Ayyar (Professor and HOD, Endocrinology) and Dr.Ganapathi Bantwal (Professor, Endocrinology). This was done to disseminate awareness regarding osteoporosis in view of the World osteoporosis day on October 20th. Osteoporosis is a public health issue worldwide, with an increasing number of severe fractures related to the aging population. The programme began with a welcome speech by Dr.Nandhini.L.P (Assistant Professor). Following this a presentation on osteoporosis with stress on postmenopausal osteoporosis was done by Dr.Sonali Appaiah (Assistant Professor, Endocrinology).

The importance of screening and diagnosis of osteoporosis for prevention of morbidity and mortality associated with fragility fractures of hip and spine was discussed. Evaluation of osteoporosis and aetiology for secondary osteoporosis was covered; followed by a discussion on the available drugs for therapy, their relative efficacies and guidelines for treatment of postmenopausal osteoporosis. This was followed by an interactive session with the audience where their queries regarding osteoporosis were answered and personal experiences in treating osteoporosis were shared by the chairpersons.

In the subsequent session three interesting cases of metabolic bone diseases were presented by senior residents Dr.Sphoorti P Pai, Dr.Vishwanth, Dr.Shruthi J. The programme was concluded by vote of thanks by associate professor Dr.Belinda George. The enthusiasm of the audience from different departments and active participation in the clinical meeting was heartening.

Acknowledgement: Dr. Sonali Appaiah,  
Assistant Professor, Endocrinology for  
providing this write up





# Rhyme Chime...

## White Magic

- Dr Jyothi Idiculla



White Bloom on the rear entrance of St. John's Hospital.

All over this square piece of land

Has the magician swung his wand

Myriads of asters in plenteous bloom

Swaying gracefully as in a ballroom

Thanks to the gardeners' handiwork

Churning charm from mud and murk!

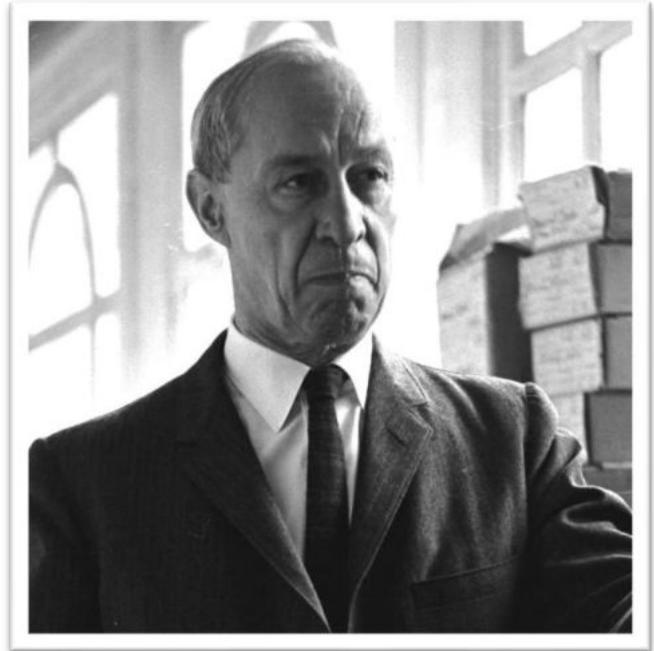
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# RESEARCH SNIPPETS

## LIKERT SCALE

The scale is named after the psychologist Rensis Likert. A likert scale consists of several declarative statements (positively and negatively stated ) that expresses a view point on a topic.



The respondents are typically asked to indicate the degree to which they agree or disagree with the opinion expressed in the form of a statement.

When the statement is positive , higher scores would be assigned to those agreeing to the statement .If its a negative statement scores would be reversed and those disagreeing would get a higher score.

A person's total score is computed by adding individual scores.

A Likert scale could be 3 point ( agree, unsure, disagree), 5 point( strongly agree, agree, unsure, disagree, strongly disagree) or 7 point (very strongly agree, strongly agree, agree, unsure, disagree, strongly disagree, very strongly disagree)



Strongly Disagree



Disagree



Neutral



Agree



Strongly Agree

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# IG NOBEL



## 1996 - MEDICINE

**James Johnston of R.J. Reynolds, Joseph Taddeo of U.S. Tobacco, Andrew Tisch of Lorillard, William Campbell of Philip Morris, Edward A. Horrigan of Liggett Group, Donald S. Johnston of American Tobacco Company, and the late Thomas E. Sandefur, Jr., chairman of Brown and Williamson Tobacco Co.**

### **Nicotine is not addictive!!!???**

James Johnston of R.J. Reynolds, Joseph Taddeo of U.S. Tobacco, Andrew Tisch of Lorillard, William Campbell of Philip Morris, Edward A. Horrigan of Liggett Group, Donald S. Johnston of American Tobacco Company, and the late Thomas E. Sandefur, Jr., chairman of Brown and Williamson Tobacco Co. for their unshakable discovery, as testified to the U.S. Congress, that nicotine is not addictive.

These corporates put forward the following points to prove their stand:

1. Phillip Morris does not add nicotine to our cigarettes. Phillip Morris does not manipulate nor independently control the level of nicotine in our products. Levels of nicotine and coaltar substantially reduced with filters!
2. Philips Morris developed de-nicotinised cigarettes, public is of the opinion and favoured apparently these no nicotine cigarettes!
3. Cigarettes contain nicotine because it occurs naturally in tobacco. Nicotine contributes to the taste of cigarettes and the pleasures of smoking. The presence of nicotine, however, does not make cigarettes a drug or smoking addiction. Ex: Coffee contains caffeine and few people seem to enjoy coffee that does not. Does that make coffee a drug?
4. Smoking is not intoxicating!
5. The allegation that smoking cigarettes is addictive is part of a growing and disturbing trend that has destroyed the meaning of the term by characterizing virtually any enjoyable activity as addictive, whether it's eating sweets, drinking coffee, playing video games, or watching TV. This defies common sense.



# IG NOBEL



## 1996 - MEDICINE

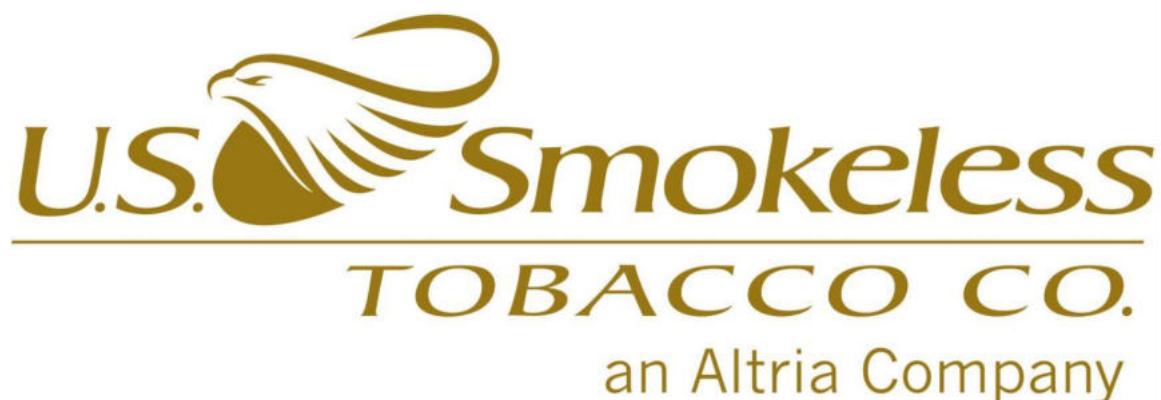
**Nicotine is not addictive!!!???**

6. If cigarettes were addictive, could almost 43 million Americans have quit smoking, almost all of them on their own without any outside help?



*Lorillard*

CLICK HERE FOR  
COMPLETE  
HEARING IN US  
CONGRESS



***When Money, Money and Money are the Sole Objectives!***

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# SURVIVOR'S CORNER

Survivors amongst us!

To honour breast cancer survivors, this month's Survivors corner is about brave women staff of St. John's who have successfully fought this malignancy.

One such story...

Mrs K was diagnosed with breast cancer in January 2010 at the age of 44. As soon as she heard the news she realised it was going to be a tough fight. Refusing to let this get in the way of living her life, she geared up for what was probably going to be the toughest fight yet. She had to undergo a modified radical mastectomy and 8 cycles of chemo therapy. Fortunately she has been cancer free for the last 10 years and hopefully many more to come! "I believe that Tough times never last, but tough people do!" is a quote that epitomises her wonderfully positive outlook in life!

Another...

Mrs S was 53 years old when a mass in the breast was detected to be malignant. She then underwent biopsies, a mammogram and finally a CT guided biopsy. She required a mastectomy, 4 cycles of chemo therapy followed by radiation. She was then given hormonal therapy as well. All these therapy though difficult to go through, enabled her to continue working and celebrate being cancer free for exactly 5 years!



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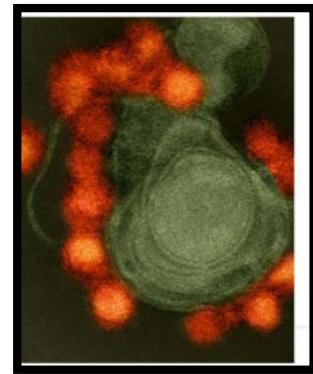


# GREY *Matters!*



## Medical QUIZ

1. Which disease is variously known as Spanish disease, Polish disease and Italian disease despite its supposed origin in America?
2. Name this virus which is named after a forest in Uganda.



3. Name this compound which is facing a major disrepute today but was once administered as an enema to treat respiratory diseases.
4. If someone died of KAROSHI, what did they die of?
5. For which infectious disease is this animal a reservoir?



[CLICK HERE FOR ANSWERS](#)



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## Chapatis will soon become EXTINCT!

**Overview** : Today, we look at the authenticity of a message that circulates on WhatsApp with a title "Chapatis will soon become EXTINCT".

**The message:** The message starts off thus - "A renowned cardiologist explains how eliminating wheat can IMPROVE your health. Cardiologist William Davis, MD, started his career repairing damaged hearts..... (Para 2) 'Wheat Belly', his New York Times best selling book, which attributes many of our physical problems including heart disease, diabetes and obesity to our consumption of wheat. Eliminating wheat can transform our lives." The article goes on to make claims such as -

- Wheat raises blood sugar dramatically
- Blood sugar reduces dramatically in diabetics just by eliminating wheat from the diet alone
- Removing wheat from diet removes small LDL cholesterol (bad cholesterol) by 80 to 90 percent
- Wheat contains gliadin that has opiate like properties which makes it highly addictive
- He then encourages people to 'return to real food' - fruit, vegetables and nuts/ cereals.



*No More Chapatis!!!*





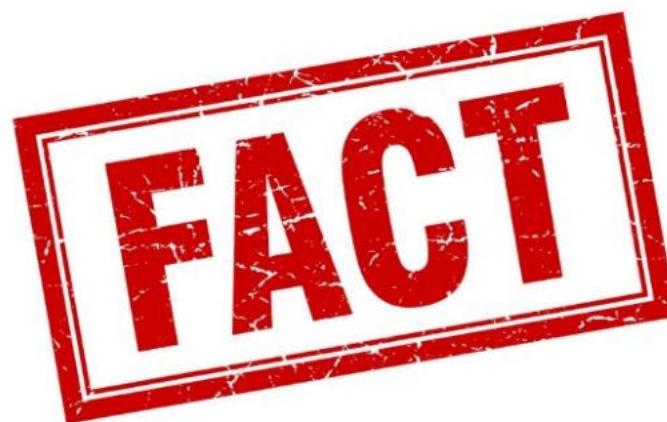
WhatsApp

# St John's WATCHDOG

## CHAPATIS are good!!

**FACT:** An investigation into the studies backing these claims by independent scientists revealed that Dr William Davis had 'cherry picked' data and studies, which were only observational in nature to support his claims, while ignoring the large majority of contrary evidence (Ref : Wikipedia page on 'Wheat Belly'). Put simply, **the above claims that have been popularised are either false or should be considered with a high degree of skepticism.** Also important to note is that the message does not differentiate between unrefined wheat/ whole wheat and refined wheat flour/ products (maida).

There is however, a well designed Japanese randomised controlled trial which demonstrated that unrefined wheat flour significantly reduces visceral abdominal fat better than refined wheat flour (Kikuchi Y et al, Plant Foods Hum Nutr. 2018 Sep). In general, wheat in any form represent carbohydrates which are an important part of a balanced diet and can be consumed healthfully in quantities recommended by standard textbooks and sources. The whole wheat form is definitely preferable over the un-refined form. There is truth to the claim that a diet rich in green vegetables, fruit and nuts confer a protective effect.



WhatsApp

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# LAUGHTER IS THE BEST MEDICINE...



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My husband went to the cardiologist after experiencing symptoms of a heart attack. "I had taken our cat to the vet," he told the nurse, "and while I was there, my chest got tight, and I had trouble breathing. Later, my left arm began aching." The nurse was clearly concerned. "So," she asked, "how was the cat?"

Q. Why was the broom late for school?  
A. It overswept!



123rf.com



Gettyimages.com

Q: What did the wild cat couple yell during their argument?

A: "You're such a cheetah!" "No, you're lion!"



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# New Section!!!

## “ST. JOHN’S FOUNTAINHEAD”

We will publish Abstracts of your  
published research.....

Based on criteria laid down by the  
Editorial Board.....

Email your Full Articles at the earliest to  
Dr. Santu Ghosh

[santu.g@stjohns.in](mailto:santu.g@stjohns.in)



## Adverse Outcomes due to Aggressive Fluid Resuscitation in Children: A Prospective Observational Study

Anand Muttath, Lalitha Annayappa Venkatesh, Joe Jose, Anil Vasudevan, Santu Ghosh

Department of Paediatrics, Department of Paediatric Nephrology, Department of Biostatistics, St John's Medical College, Bangalore, Karnataka, India.

### Abstract

Fluid management has a major impact on the duration, severity, and outcome of critically ill children. The aim of this study was to examine the relationship between cumulative fluid overload (CFO) with mortality and morbidity in critically ill children. This was a prospective observational study wherein children (1 month–16 years) who were critically ill (with shock requiring inotropes and/or mechanically ventilated) were enrolled. CFO was defined as the sum of daily fluid balances. Daily fluid balance was calculated as a difference between fluid intake (oral and intravenous) and output (urine output, discharge from nasogastric tube) in 24 hours. Percentage of fluid overload (FO) (PFO) was calculated as the ratio of CFO with weight at admission in kilogram. The CFO and PFO at 24, 48, 72 hours and at 7 days or end of PICU stay were calculated. A total of 291 children (244 survivors and 47 non-survivors; 47% males) were included in the final analysis. A higher mortality was observed in children with higher PFO (>20% FO: 45.8% mortality vs. 14.5% < 10% FO,  $p < 0.01$ ) and CFO ( $10.97 \pm 6.4$  ml/kg in survivors vs.  $13.95 \pm 9.6$  ml/kg in non-survivors;  $p = 0.022$ ) at 72 hours. A 1% increase in fluid overload was associated with 6% and 4% increase in mortality at 72 hours and 7 days, respectively. Similarly, the impact of every 1% increase in fluid overload on both ventilation (yes/no) and acute kidney injury (AKI; yes/no) were found to be significant for both parameters at 72 hours, but only AKI had significant correlation on seventh day. In the multivariate stepwise cox's proportional hazard model for PICU stay and hospital stay, 3% ( $p < 0.05$ ) and 2% ( $p > 0.05$ ) increase were found for every 1% increase in fluid overload, respectively. Oxygenation index is also associated with fluid overload with the adjusted model estimated 0.27 units (95% confidence interval: 0.18–0.36) increase per 1% increase in fluid overload. FO was associated with increased mortality and morbidity in critically ill children.

J Pediatr Intensive Care 2019; 08(02): 064-070, DOI: 10.1055/s-0038-1667009

**Socio-economic, environmental and nutritional characteristics of urban and rural South Indian women in early pregnancy: findings from the South Asian Birth Cohort (START).****Dwarkanath P, Vasudevan A, Thomas T, Anand SS, Desai D, Gupta M, Menezes G, Kurpad AV, Srinivasan K.**

Division of Nutrition, Department of Biostatistics and Epidemiology, St. John's Research Institute, Department of Pediatric Nephrology, St. John's Medical College Hospital, Department of Psychiatry, St. John's Medical College Hospital, Bangalore 560034, India. Population Health Research Institute, Hamilton Health Sciences, McMaster University, Hamilton, Ontario, Canada, Snehalaya Mission Hospital, Solur, Ramnagara, Bangalore, India.

**Abstract**

**OBJECTIVE:** High frequency of low birth weight (LBW) is observed in rural compared with urban Indian women. Since maternal BMI is known to be associated with pregnancy outcomes, the present study aimed to investigate factors associated with BMI in early pregnancy of urban and rural South Indian women.

**DESIGN:** Prospective observational cohort.

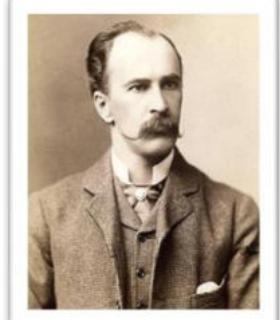
**SETTING:** A hospital-based study conducted at an urban and a rural health centre in Karnataka State. **SUBJECTS:** Pregnant women (n 843) aged 18-40 years recruited in early pregnancy from whom detailed sociodemographic, environmental, anthropometric and dietary intake information was collected.

**RESULTS:** A high proportion of low BMI (32 v. 26 %,  $P < 0.000$ ) and anaemia (48 v. 23 %,  $P < 0.000$ ) was observed in the rural v. the urban cohort. Rural women were younger, had lower body weight, tended to be shorter and less educated. They lived in poor housing conditions, had less access to piped water and good sanitation, used unrefined fuel for cooking and had lower standard of living score. The age ( $\beta = 0.21$ , 95 % CI 0.14, 0.29), education level of their spouse ( $\beta = 1.36$ , 95 % CI 0.71, 2.71) and fat intake ( $\beta = 1.24$ , 95 % CI 0.20, 2.28) were positively associated with BMI in urban women.

**CONCLUSIONS:** Our findings indicate that risk factors associated with BMI in early pregnancy are different in rural and urban settings. It is important to study population-specific risk factors in relation to perinatal health.

Public Health Nutr. 2018 Jun;21(8):1554-1564. doi: 10.1017/S1368980017004025.

# THE QUOTABLE OSLER



SIR WILLIAM OSLER

## Life's race is hard and short with help at hand.

In ordinary training you run the course over, but life's race is run but once; and, though, the course may seem long to you, it is really very short, but very hard to learn. Fortunately, you are not alone on the track, as your brothers are ahead, and if you are willing there is always help at hand



© Dept Reduction Services

REF: The Quotable OSLER: Edited by Mark E Silverman, T. Jock Murray, Charles. S Bryan



## MEDICINE DIS WEEK

*A Bird's Eye View.....*

### Complete Revascularisation for Myocardial Infarction.

In patients with ST-segment elevation myocardial infarction (STEMI), percutaneous coronary intervention (PCI) of the culprit lesion reduces the risk of cardiovascular death or myocardial infarction. Whether PCI of nonculprit lesions further reduces the risk of such events is unclear. In the COMPLETE study (a RCT), it was shown that, at median follow-up of 3 years, the first coprimary outcome had occurred in 7.8% of patients in complete-revascularization group as compared with 10.5% in culprit-lesion-only PCI group ( $P=0.004$ ). The second coprimary outcome had occurred in 8.9% of patients in complete-revascularization group as compared with 16.7% in culprit-lesion-only PCI group ( $P<0.001$ ). It was concluded that complete revascularisation is beneficial.

- Mehta SR et al. *N Engl J Med.* 2019;381(15):1411.

### Optimal duration of Bisphosphonates for treatment of Osteoporosis.

Optimal long-term osteoporosis drug treatment is uncertain. In a systematic review of 35 trials and 13 observational studies, Long-term bisphosphonates increased risk for atypical femoral fractures and osteonecrosis of the jaw. In women with unspecified osteoporosis status, 5 to 7 years of hormone therapy reduced clinical fractures, including hip fractures, but increased serious harms. After 3 to 5 years of treatment, bisphosphonate continuation versus discontinuation reduced radiographic vertebral fractures (zoledronic acid) and clinical vertebral fractures (alendronate) but not nonvertebral fractures. The potential benefits of continued fracture reduction must be considered in light of the potential risks of long-term therapy. Hence it is recommended to individualize decisions about duration of bisphosphonate therapy based upon patient characteristics (eg, risk of fracture) and preferences.

-Fink HA et al., *Ann Intern Med.* 2019;171(1):37.



ORIGINAL ARTICLE

# Complete Revascularization with Multivessel PCI for Myocardial Infarction

Shamir R. Mehta, M.D., David A. Wood, M.D., Robert F. Storey, M.D., Roxana Mehran, M.D., Kevin R. Bainey, M.D., Helen Nguyen, B.Sc., Brandi Meeks, M.Sc., Giuseppe Di Pasquale, M.D., Jose López-Sendón, M.D., David P. Faxon, M.D., Laura Mauri, M.D., Sunil V. Rao, M.D., Laurent Feldman, M.D., P. Gabriel Steg, M.D., Álvaro Avezum, M.D., Tej Sheth, M.D., Natalia Pinilla-Echeverri, M.D., Raul Moreno, M.D., Gianluca Campo, M.D., Benjamin Wrigley, M.D., Sasko Kedev, M.D., Andrew Sutton, M.D., Richard Oliver, M.D., Josep Rodés-Cabau, M.D., Goran Stanković, M.D., Robert Welsh, M.D., Shahar Lavi, M.D., Warren J. Cantor, M.D., Jia Wang, M.Sc., Juliet Nakamya, Ph.D., Shrikant I. Bangdiwala, Ph.D., and John A. Cairns, M.D., for the COMPLETE Trial Steering Committee and Investigators\*

## ABSTRACT

### BACKGROUND

In patients with ST-segment elevation myocardial infarction (STEMI), percutaneous coronary intervention (PCI) of the culprit lesion reduces the risk of cardiovascular death or myocardial infarction. Whether PCI of nonculprit lesions further reduces the risk of such events is unclear.

### METHODS

We randomly assigned patients with STEMI and multivessel coronary artery disease who had undergone successful culprit-lesion PCI to a strategy of either complete revascularization with PCI of angiographically significant nonculprit lesions or no further revascularization. Randomization was stratified according to the intended timing of nonculprit-lesion PCI (either during or after the index hospitalization). The first coprimary outcome was the composite of cardiovascular death or myocardial infarction; the second coprimary outcome was the composite of cardiovascular death, myocardial infarction, or ischemia-driven revascularization.

### RESULTS

At a median follow-up of 3 years, the first coprimary outcome had occurred in 158 of the 2016 patients (7.8%) in the complete-revascularization group as compared with 213 of the 2025 patients (10.5%) in the culprit-lesion-only PCI group (hazard ratio, 0.74; 95% confidence interval [CI], 0.60 to 0.91;  $P=0.004$ ). The second coprimary outcome had occurred in 179 patients (8.9%) in the complete-revascularization group as compared with 339 patients (16.7%) in the culprit-lesion-only PCI group (hazard ratio, 0.51; 95% CI, 0.43 to 0.61;  $P<0.001$ ). For both coprimary outcomes, the benefit of complete revascularization was consistently observed regardless of the intended timing of nonculprit-lesion PCI ( $P=0.62$  and  $P=0.27$  for interaction for the first and second coprimary outcomes, respectively).

### CONCLUSIONS

Among patients with STEMI and multivessel coronary artery disease, complete revascularization was superior to culprit-lesion-only PCI in reducing the risk of cardiovascular death or myocardial infarction, as well as the risk of cardiovascular death, myocardial infarction, or ischemia-driven revascularization. (Funded by the Canadian Institutes of Health Research and others; COMPLETE ClinicalTrials.gov number, NCT01740479.)

The authors' affiliations are listed in the Appendix. Address reprint requests to Dr. Mehta at the Population Health Research Institute, McMaster University and Hamilton Health Sciences, David Braley Research Bldg., Hamilton General Hospital, 237 Barton St. E., Hamilton, ON L8L 2X2, Canada, or at [smehta@mcmaster.ca](mailto:smehta@mcmaster.ca).

\*A complete list of the COMPLETE trial steering committee members and investigators is provided in the Supplementary Appendix, available at [NEJM.org](http://NEJM.org).

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DOI: 10.1056/NEJMoa1907775

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CONTENTS



# Long-Term Drug Therapy and Drug Discontinuations and Holidays for Osteoporosis Fracture Prevention

## A Systematic Review

Howard A. Fink, MD, MPH; Roderick MacDonald, MS; Mary L. Forte, PhD, DC; Christina E. Rosebush, MPH; Kristine E. Ensrud, MD, MPH; John T. Schousboe, MD, PhD; Victoria A. Nelson, MSc; Kristen Ullman, MPH; Mary Butler, PhD, MBA; Carin M. Olson, MD, MS; Brent C. Taylor, MPH, PhD; Michelle Brasure, PhD, MSPH, MLIS; and Timothy J. Wilt, MD, MPH

**Background:** Optimal long-term osteoporosis drug treatment (ODT) is uncertain.

**Purpose:** To summarize the effects of long-term ODT and ODT discontinuation and holidays.

**Data Sources:** Electronic bibliographic databases (January 1995 to October 2018) and systematic review bibliographies.

**Study Selection:** 48 studies that enrolled men or postmenopausal women aged 50 years or older who were being investigated or treated for fracture prevention, compared long-term ODT (>3 years) versus control or ODT continuation versus discontinuation, reported incident fractures (for trials) or harms (for trials and observational studies), and had low or medium risk of bias (ROB).

**Data Extraction:** Two reviewers independently rated ROB and strength of evidence (SOE). One extracted data; another verified accuracy.

**Data Synthesis:** Thirty-five trials (9 unique studies) and 13 observational studies (11 unique studies) had low or medium ROB. In women with osteoporosis, 4 years of alendronate reduced clinical fractures (hazard ratio [HR], 0.64 [95% CI, 0.50 to 0.82]) and radiographic vertebral fractures (both moderate SOE), whereas 4 years of raloxifene reduced vertebral but not nonvertebral fractures. In women with osteopenia or osteoporosis, 6 years of zoledronic acid reduced clinical fractures (HR, 0.73 [CI, 0.60 to 0.90]), including nonvertebral fractures (high SOE) and

clinical vertebral fractures (moderate SOE). Long-term bisphosphonates increased risk for 2 rare harms: atypical femoral fractures (low SOE) and osteonecrosis of the jaw (mostly low SOE). In women with unspecified osteoporosis status, 5 to 7 years of hormone therapy reduced clinical fractures (high SOE), including hip fractures (moderate SOE), but increased serious harms. After 3 to 5 years of treatment, bisphosphonate continuation versus discontinuation reduced radiographic vertebral fractures (zoledronic acid; low SOE) and clinical vertebral fractures (alendronate; moderate SOE) but not nonvertebral fractures (low SOE).

**Limitation:** No trials studied men, clinical fracture data were sparse, methods for estimating harms were heterogeneous, and no trials compared sequential treatments or different durations of drug holidays.

**Conclusion:** Long-term alendronate and zoledronic acid therapies reduce fracture risk in women with osteoporosis. Long-term bisphosphonate treatment may increase risk for rare adverse events, and continuing treatment beyond 3 to 5 years may reduce risk for vertebral fractures. Long-term hormone therapy reduces hip fracture risks but has serious harms.

**Primary Funding Source:** National Institutes of Health and Agency for Healthcare Research and Quality. (PROSPERO: CRD42018087006)

*Ann Intern Med.* 2019;171:37-50. doi:10.7326/M19-0533

Annals.org

For author affiliations, see end of text.

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Osteoporosis is a skeletal disorder of low bone mass and microarchitectural deterioration of bone that leads to bone fragility and increased risk for fracture (1). About 10 million U.S. adults aged 50 years or older have osteoporosis (2), and about 2 million U.S. adults experience an osteoporotic or other low-trauma fracture each year (3). Such fractures often cause pain, disability, and impaired quality of life (4, 5), and hip fractures and clinical vertebral fractures are associated with increased mortality (5, 6). Most fracture risks increase sharply with age; therefore, fracture burden is projected to increase in coming decades as the population ages.

Several osteoporosis drug treatments (ODT) reduce fractures in short-term randomized controlled trials of up to 3 years. Bisphosphonates, denosumab, teriparatide, and abaloparatide reduce nonvertebral fractures and clinical and radiographic vertebral fractures (7, 8). Bisphosphonates and denosumab also lower risk for hip fractures (8). Less is understood about

the benefits and harms of initiating long-term ODT or, in patients who have already completed short-term treatment, of continuing versus discontinuing ODT. A recent American College of Physicians guideline recommended ODT with a bisphosphonate or denosumab for 5 years to reduce hip and vertebral fractures in osteoporotic women but suggested that high-risk patients may benefit from longer treatment (8).

Concerns that long-term bisphosphonate use might increase fracture risk by inhibiting normal repair of bone microdamage (9, 10) have led to suggestions

### See also:

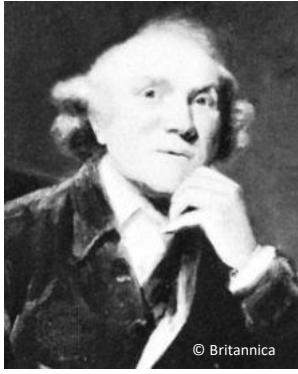
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***A night with Venus meant a lifetime with Mercury***



John Hunter

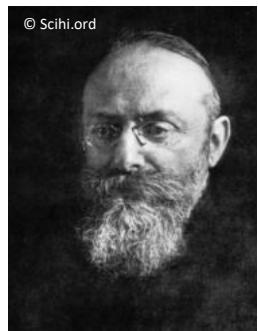
Syphilis was often confused with gonorrhoea. Early in the initial epidemic, the mercury-containing ointment, unguentum Saracenicum, proved effective and, for 400 years, mercury remained the only reliable therapy. It was said that “A night with Venus meant a lifetime with Mercury”. However, mercury is a poison, and those treated with Mercury suffered hair and teeth loss, stomach pains and mouth ulcers; in fact, many preferred the horrors of syphilis to the treatment.



The earliest known medical illustration of people with syphilis, Vienna, 1498

In 1767, the British surgeon John Hunter decided to self experiment to settle the question. He infected himself with pus from a patient known to have gonorrhoea, and waited for the symptoms to appear. Unfortunately, the patient also had latent syphilis, and when Hunter developed symptoms of both diseases, he decided that they were the same.

It was in 1879, when the German bacteriologist Albert Neisser identified the gonococcus, that scientists finally agreed that gonorrhoea and syphilis were actually two diseases.



Albert Neisser



The discovery of guaiacum as cure for syphilis, after Stradanus, 1590

**CONTENTS**

**PEARLS OF WISDOM**

**There are many great deeds done in the small struggles of life.**

*- Victor Hugo*



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**Don't wait until you know who you are to get started.**

*- Austin Kleon*

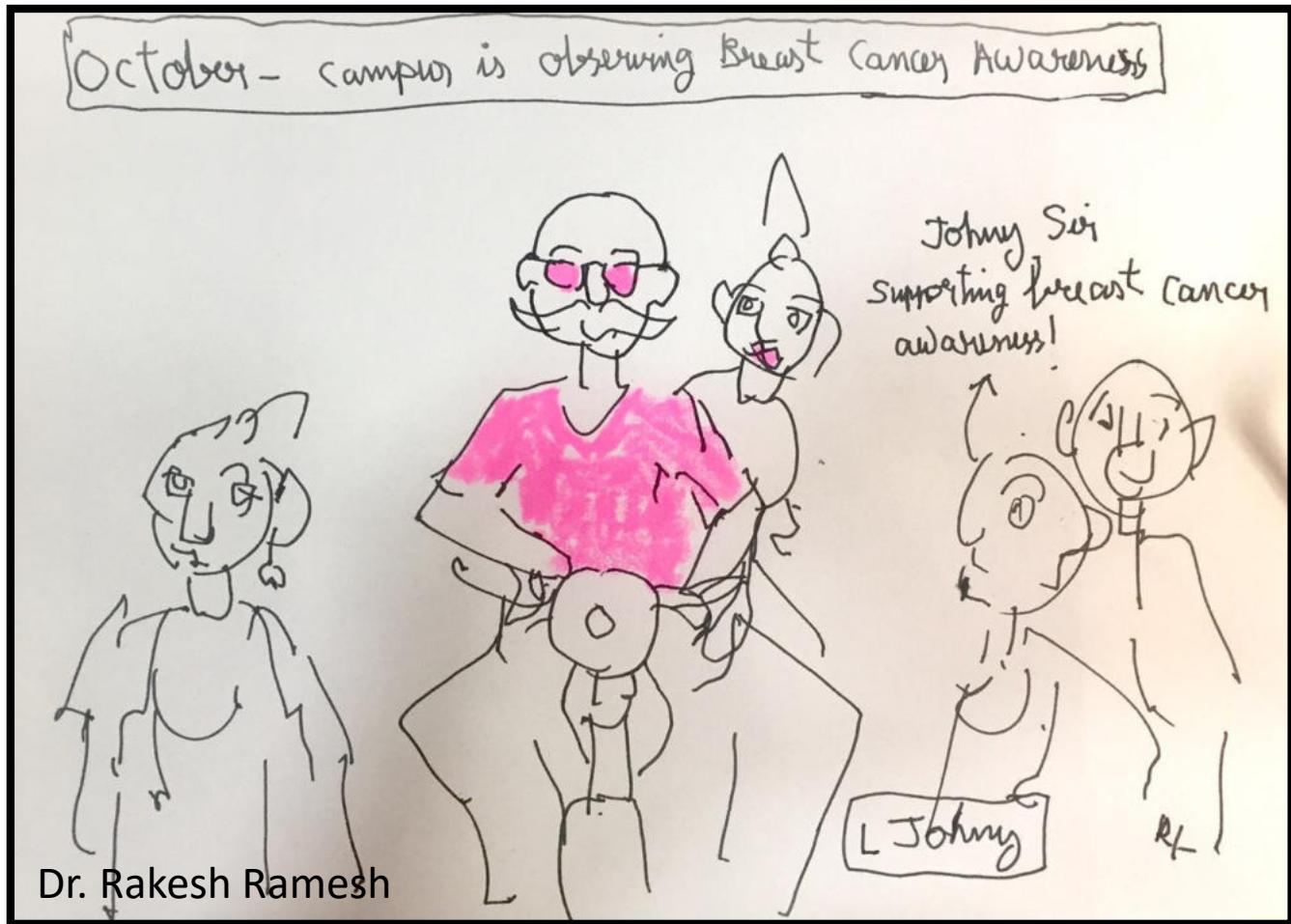
**To each, his own is beautiful.**

*- Latin Proverb*



© Rocky Mount Church of God

# L Johnny



## Did You Know?

Owls don't have a sense of smell, so they can't 'sniff' out prey. Almost all of the diurnal birds of prey (eagles, hawks and so on) are the same as owls and have no sense of smell.



Ref: <https://theowlstrust.org>

However, owls have extremely sensitive hearing, which helps them to locate their prey.

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Write to Dr. Avinash. H. U: [avinash.hu@stjohns.in](mailto:avinash.hu@stjohns.in)



# GREY *Matters!*



MEDICAL QUIZ

## ANSWERS

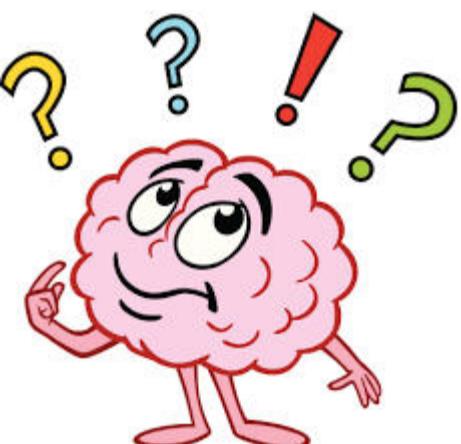
1. Syphilis
2. Zika virus named after the Zika forest in Uganda
3. Tobacco. Tobacco smoke enema was used as a respiratory stimulant!
4. Overwork! (Karoshi is a Japanese word for overwork)
5. Leprosy

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