Leishmaniasis is caused by protozoan parasite of the genus *Leishmania*, of which there are more than 20 sub-species. It is a vector borne disease transmitted by the bite of the female sand fly of *Phlebotomus* sp. or *Lutzomiya* spp. Leishmaniasis is endemic in regions of tropical Africa, Central and South America, the Mediterranean, central and East Asia and southern Europe. An estimated 2 million new cases (1.5 million cases of cutaneous leishmaniasis and 500 000 of visceral leishmaniasis) occur annually, with about 12 million people currently infected (WHO TRS, 2010).

Leishmaniasis is categorized in 3 major forms ranging in severity from spontaneously healing skin ulcers in cutaneous leishmaniasis (CL), destructive mucocutaneous leishmaniasis (MCL) to fatal visceral leishmaniasis (VL) (Siefert K, 2011). Visceral leishmaniasis is also known as Kala-azar, In India, VL (Kala-azar) is endemic in the eastern regions of the country and often becomes epidemic, claiming the lives of thousands and causing severe morbidity to hundreds of thousands. The etiological agents belong to the *Leishmania donovani* complex, *L.d donovani, L.d infantum* and *L.d archibaldi* in the old world and *L.d chagasi* in the new world. VL is clinically characterized by fever, weight loss, hepatosplenomegaly, and pancytopenia and has a high mortality rate in untreated cases. Post kala-azar dermal leishmaniasis (PKDL) is a dermal complication, caused as a sequel to VL (Salotra et al, 2006). It manifests in 5-15 per cent of VL cases after month or several years of remission from infection.

In Indian subcontinent CL is mainly caused by *L.tropica*, however, cases of CL due to *L. donovani* and *L. major* have also been reported. An effective vaccine against leishmaniasis is not available till date and chemotherapy is the only effective way to treat all forms of disease.

**Drugs Available**

Besides pentavalent antimonials other available antileishmanial drugs include amphotericin B, miltefosine and paromomycin. The drug regimens for various forms of leishmaniasis is given in table1.
Treatment of Visceral Leishmaniasis

The pentavalent antimonials (meeglumine antimonate and sodium stibogluconate) remained the mainstay of antileishmanial chemotherapy since they were discovered in early 1940s, and have been used in the treatment of VL and CL for more than seven decades. Response rates are still over 95% in CL patients in many parts of the world, but acquired resistance to pentavalent antimony (Sbv) has developed in the high prevalence in high VL transmission regions of Bihar, India. In case of CL intralesional administration of the drug has shown promising results by injection of 0.2-1 ml of SbV (Monzote L, 2009). Side effects of antimonials include cardiac arrhythmias, increased hepatic transaminases, pancreatitis, and pneumonitis.

### Table 1

<table>
<thead>
<tr>
<th>Disease</th>
<th>Antimonials(Sb^{5+})</th>
<th>Amphotericin B</th>
<th>Miltefosine</th>
<th>Paromomycin</th>
</tr>
</thead>
<tbody>
<tr>
<td>VL</td>
<td>Intravenous or Intramuscular 20mg/kg per day for 30 days,</td>
<td>Intramuscular/ Intravenous 3–5 mg/kg per daily dose by infusion given over 3–5 days period up to a total dose of 15 mg/kg,</td>
<td>Oral for children aged 2–11 years, 2.5 mg/kg per day; for people aged 12 years and &lt; 25 kg body weight, 50 mg/day; 25–50 kg body weight, 100 mg/day; &gt; 50 kg body weight, 150 mg/day; for 28 days,</td>
<td>Intramuscular 15 mg (11 mg base) per kg body weight per day for 21 days,</td>
</tr>
<tr>
<td>PKDL</td>
<td>Intravenous infusion of 20mgSb^{5+}/kg per day for 30-60 days</td>
<td>1mg/kg per day, up to 60-80 doses over 4 month</td>
<td>Doses as above for 12 week, oral</td>
<td>NA</td>
</tr>
<tr>
<td>CL</td>
<td>Intrale sional, 0.5-5ml is injected into the base and margins of the lesion</td>
<td>0.5 to 1.0 mg/kg alternate day for up to eight weeks; total dosage is 1.5 to 2 g for the treatment period</td>
<td>Not defined, However in New world doses varies with infecting sp.</td>
<td>15% paromomycin sulphate dissolved in a soft white paraffin base, either with 12% methylbenzothenium chloride or with 10% urea</td>
</tr>
</tbody>
</table>
Amphotericin B is a polyene antibiotic, which was originally extracted from *Streptomyces nodosus*. Amphotericin B has excellent leishmanicidal activity and constitutes an option in patients that showed resistance to treatment with antimonials. The major drawback of this drug is prolonged hospitalization, and toxicity like nephrotoxicity, fever chills, hypokalaemia and myocarditis. Currently, toxic effects of amphotericin B have been largely ameliorated with the advent of lipid formulations. Lipid based formulations liposomal amphotericin B (AmBisome®) has been approved for treatment of VL by the U.S. Food and Drug Administration (FDA) (WHO TRS, 2010).

Miltefosine (MIL) an alkylphosphocholine was originally developed as anti-cancer drug. MIL as a first oral drug has proved to be highly effective against VL, with cure rates of 94%, including cases unresponsive to antimony. It was therefore, proposed as first line VL therapy and remains the mainstay in the Kala-azar elimination program that aims to reduce the incidence of VL to 0.0001% in the endemic areas of the Indian subcontinent by the year 2015. Side effects of MIL include anorexia, nausea, vomiting and diarrhoea. Since it is embryotoxic and teratogenic should not be used during pregnancy.

Paromomycin (aminosidine) is an aminoglycoside with antileishmanial activity. The results of phase IV clinical trials confirm the safety and efficacy of the drug as VL treatment option. Since Paromomycin is an aminoglycoside, it is possible that resistance will emerge rapidly if it used as monotherapy.

**Treatment of Cutaneous Leishmaniasis**

Besides pentavalent antimonials and amphotericin B various other localized treatment option are available for CL. Topical paromomycin is effective with *L. major* and *L. mexicana*. It can be combined with antimonials to reduce the number of injections.

**CO2 Laser:** Carbon dioxide laser has been used to vaporize cutaneous leishmaniasis lesions in Turkmenistan or Iran. A power of 30W (maximum 100 W) and a pulse width of 0.5–5 s, until the ulcer bed turned brown and the hemostasis was performed, provided 94% healing (Markle et al, 2004).

**Cryotherapy:** Cryotherapy has been only used in Old World cutaneous leishmaniasis. Two cycles of 10–30 s freezing time are sufficient for *L. tropica* lesions in Greece whereas 1–3 sessions of two applications (15–20 s freezing time with a thaw of 1 min, each) are used in Jordan (L. major or L. tropica).

**Localized controlled heat:** ThermoMeds (ThermoSurgery Technologies, Inc, Phoenix, Arizona) is an FDA-approved device that delivers localized radiofrequency-generated heat directly to a lesion through prongs placed onto it. Heat may be controlled locally and 50° C for 30 s are used. The procedure is painful and requires local anesthetic (Markle et al, 2004).

**Combination therapy**

Drugs for visceral leishmaniasis have several drawbacks, such as long regimen duration, parenteral administration, toxic effects or high costs. Combination therapy aim to increase overall treatment efficacy and tolerance, maintain high level cure rates when using either lower drug doses or
shorter treatment periods, less drug-related toxicity, and the possibility of limiting the emergence of resistance to either agent (Sundar et al, 2008). Advances in anti-leishmanial chemotherapy including the development of new drugs have made combination chemotherapy a real possibility. Combination therapy using three registered drug in India, Liposomal-AmB, Miltefosine and Paromomycin produced a cure rate of 97.5% for VL in each combination (Liposomal-AmB and paromomycin; Liposomal-AmB and miltefosine; paromomycin and miltefosine).

References
8. WHO TRS 2010
CONFERENCES/PROCEEDINGS/SEMINARS/  
TRAINING COURSES ORGANISED/ATTENDED

Participation in meeting/ symposia

1. Dr. Sunita Saxena attended meeting for multi institutes project held at National Institute of Pathology on 19th July, 2012.

2. Dr. Sunita Saxena attended meeting on Time Line for the 4th year of National Retinoblastoma Registry held at National Institute of Pathology, New Delhi on 24th July, 2012.

3. Dr. Sunita Saxena attended and chaired the meeting “Dr. V. Ramalingaswamy Oration” and Hepatopathology Update 2012 held at Institute of Liver and Biliary Sciences, New Delhi on 8th August, 2012.

4. Dr. Sunita Saxena attended guest lecture by Dr. Robert W. Garter, founder and Director of Medical Centre, Cologene on 22nd August, 2012 at National Institute of Pathology, New Delhi.

5. Dr. Sunita Saxena attended Delhi Chapter Quarterly meet held at R&R Hospital, New Delhi on 25th August, 2012.

6. Dr. Sunita Saxena Chaired Screening Committee for screening of application for the post of Scientist C held at ICMR, New Delhi on 17th September, 2012.

7. Dr. Sunita Saxena inaugurated Half Day Author Workshop held at National Institute of Pathology on 21st September, 2012.

8. Dr. Sunita Saxena appointed examiner for the practical examination of National Board of Examination held at Gandhi Medical College, Hyderabad from 24th – 27th September, 2012.

9. Dr. Sunita Saxena appointed as an Appraiser to conduct appraisal of ESI Hospital, Basai Darapur, New Delhi for DNB Trainees at ESI Hospital on 30th September, 2012.

10. Dr. Sunita Saxena invited to attend pre Scientific Advisory Committee meeting of National JALMA Institute for Leprosy & Other Mycobacterial Diseases, Agra held on 1st October, 2012.

11. Dr. Sunita Saxena attended 6th PI meeting of the Naional Retinoblastoma Registry held at National Institute of Pathology on 3rd October, 2012.

12. Dr. Sunita Saxena invited to attend 85th Governing Body meeting of the ICMR held at Nirman Bhawan, New Delhi on 10th October, 2012.

13. Dr. Sunita Saxena attended Pre Scientific Advisory Committee meeting on Tumour Biology of National Institute of Pathology, New Delhi held on 17th October, 2012.

14. Dr. Sunita Saxena attended Pre Scientific Advisory Committee meeting on Infectious Diseases of National Institute of Pathology, New Delhi held on 18th October, 2012.

15. Dr. Sunita Saxena attended singing of Memorandum of Understanding between National Institute of Pathology and Jamia Hamdard University, New Delhi on 19th October, 2012.

17. Dr. Sunita Saxena invited to attend the Selection Committee meeting for the selection of Emeritus Medical Scientist held at ICMR, New Delhi on 29th October, 2012.

18. Dr. Sunita Saxena attended IAPM Delhi Chapter meeting of Executive Committee held at MAMC, New Delhi on 30th October, 2012.

19. Dr. Sunita Saxena invited to attend personally interact with the Directors on individual basis to get an update of the progress for the ongoing translational research projects held at ICMR, New Delhi on 14th November, 2012.

20. Dr. Sunita Saxena invited to attend 86th Governing Body meeting of the ICMR held at Nirman Bhawan, New Delhi on 15th November, 2012.

21. Dr. Sunita Saxena attended Scientific Advisory Committee meeting of the National Institute of Pathology held on 16th November, 2012.

22. Dr. Sunita Saxena attended and presented the work in 2nd global Cancer Genomics Consortium held at Tata Memorial Centre, Mumbai during 19th to 20th November, 2012.

23. Dr. Sunita Saxena attended Selection Committee meeting for the selection of Consultant for ICMR Deemed University held at National Institute of Pathology on 14th December, 2012.

24. Dr. Poonam Salotra presented the work on surveillance of drug susceptibility in a meeting on ‘Monitoring of clinical outcomes of Kala-Azar in the health & surveillance of drug resistance’ on held at Surajkund Faridabad, on 27th Jan, 2012.

25. Dr. Poonam Salotra participated in meeting of European Union project ‘Rapsodi’ held at Toulon, France from 7th Feb-10th Feb 2012.

26. Dr. Poonam Salotra was invited as lead speaker to present work Diagnosis of Visceral leishmaniasis in meeting on “Diagnostics of Public Health Importance in India” on 21st February 2012 at National Institute of Immunology.

27. Dr. Poonam Salotra participated in 2nd Brain storming meeting of vector science forum on Japanese encephalitis and visceral and Cutaneous leishmaniasis on held at NIP 23rd Feb 2012.

28. Dr. Poonam Salotra participated in the PRC meeting of ECD held at ICMR Hq on 23rd March 2012.

29. Dr. Poonam Salotra participated in a meeting on ‘Kala azar alleviation initiative’ held on 14th March 2012 at Mapple Emerald hotel, Gurgaon.

30. Dr. Poonam Salotra participated in “Molecular Diagnostics Challenges Vis-à-vis Growth Potential” meeting held at Indian Habitat Centre, New Delhi, on 8th June, 2012.

31. Dr. Poonam Salotra participated in Post Kala Azar Dermal Leishmaniasis meeting held at Hotel Taj Aminbasdor, Sujan Singh Park, New Delhi, on 27th to 29th June, 2012.

32. Dr Poonam Salotra participated in the Steering Committee Meeting of Leishmania Kala Drug Project at Montpellier on 18th June, 2012.
33. Dr Salotra participated in the Steering Committee Meeting of Leishmania Rapsodi Project at France from 20-22 June,2012.

34. Dr. Salotra participated in WHO informal consultative meeting on preparation for PKDL case management and control guidelines, 2-3 July 2012, Kolkata, India.

35. Dr. Poonam Salotra participated in meetings held at INSA, New Delhi, on 8th and 17th Aug, 2012.

36. Dr. Poonam Salotra participated in INDO-US Vaccine action programme twenty five-year celebration held at ICGEB,Aruna Asaf Ali Marg, New Delhi, on 3rd Sep, 2012.

37. Dr Salotra participated in the Gordan research Conference, USA from 29th July to 3rd August, 2012.

38. Dr Salotra participated in the Steering Committee Meeting of Leishmania Kala-Drug Project at Kathmandu, Nepal in 23rd to 27th Sep 2012.

39. Dr Salotra participated in the Steering Committee Meeting on PKDL organised by DNDI and PATH at American Society of tropical Medicine and Hygiene at USA from 7th to 15th Nov, 2012.

40. Dr. Ruchi Singh participated in course on ‘PRINCIPLES AND PRACTICE OF CLINICAL RESEARCH’ organized by Clinical Development Services Agency in partnership with the NIH Clinical Center, USA, at India International Centre, New Delhi from 29th October- 3rd November 2012.

41. Dr. Avninder Singh Presented a talk on Skin Disease at International Dermatopathology Conference at Mangalore on 2nd September 2012.

42. Dr. Avninder Singh Judged Poster and Oral Free Paper Session on Dermatopathology Conference at Mangalore on 1-2 September 2012

**Students Activities**

1. Ms Vasundhra Bhandari won the Dr. S Sriramachari Young Scientist award on 15 May, 2012.

2. Ms Vasundhra Bhandari participated and presented work in PGI Golden Jubilee Workshop on Molecular Diagnosis for Parasitic Diseases: Conventional & Real Time PCR techniques on 10 Sep, 2012 held in PGI, Chandigarh.


4. Mr Himanshu Kaushal participated and presented work in Immunocon Conference Held From 9th – 11th Nov, 2012 On The Topic “Enhanced Ifn- And Tnf- Levels In Post Kala-Azar Dermal Leishmaniasis Upon Stimulation With Leishmania Antigen”

5. Mr Kumar Avishek participated in Microcon Conference held from 22nd to 25th Nov, 2012 in New Delhi and presented poster entitled as “Use of Slit aspirate specimens to diagnose Post Kala-azar Dermal Leishmaniasis (PKDL): Minimally invasive sampling”

6. Mr Deepak Kumar Deep participated in Microcon Conference held from 22nd to 25th Nov, 2012 in New Delhi presented poster in entitled “Identification of Miltefosine resistance associated genes in Leishmania donovani”.
On the eve of Independence day flag Hosting was done at NIP Terrace on 14th August 2012

We bid farewell to Mr. V.K.Khanduja, Account Officer on his Superannuating on 28th Sept. 2012

Poster Presentation on 16-11-12 at National Institute of Pathology, New Delhi
Wiley workshop on Scholarly publishing : What it Takes to Publish on 21st September 2012 at NIOP
Organized by Wiley, ICMR and NIOP

Training Programme on Hybridoma Technology Given to Accurex, Mumbai at Tissue Culture Lab, NIOP from 24th Sept-5th Oct 2012
**PhD Awarded**

1. Mr Gajendra Katara was awarded PhD degree by BITS, Pilani under the guidance of Dr. Poonam Salotra on the topic entitled “Studies on Host Immuno-determinants Modulated During Active Disease in Kala-azar and Post Kala-azar Dermal Leishmaniasis” in May, 2012

2. Ms Arpita Kulshresthra was awarded PhD degree by BITS, Pilani under the guidance of Dr. Poonam Salotra on the topic entitled as “Studies on drug sensitivity in *Leishmania donovani* field isolates and differential gene expression analysis in Miltefosine resistant parasit

**Awards/Honours**

1. Dr. Poonam Salotra was elected as Fellow of Indian National Science Academy in an award ceremony held on 27th Dec to 31st Dec 2011 at Tezpur, Assam.

2. Dr. Ruchi Singh was awarded with the best presentation award in women scientist category in the ‘National Symposium on Microbes in Health and Agriculture’ organized by School of Life Sciences, Jawaharlal Nehru University, New Delhi from 12-13 March 2012.

**Workshops organized**

- Dr. Poonam Salotra organized the Flow cytometry Technical support and education (TTE) conducted by BD biosciences on 15th, 16th & 17th February, 2012 at NIP New Delhi.

- NIOP Library organized the Author Workshop on Scholarly Publishing held on at NIOP auditorium 21st September 2012.

- Workshop on Research Methodologies for Medical Scientists held from 9th-12th October 2012 at NIOP.

- The Scientific Advisory Committee Meeting of the NIOP held on 16th November 2012.
श्रद्धाचार का मानन
सन्तोष देवधा

कहीं हड़ताल का शोर। कहीं जल्दूस का शोर कहीं बंद का धमासान। कहीं भीड़ को नियंत्रित करती पुलिस का शोर। संसद के अंदर शोर बहर शोर। पर की रिसौं में महांगई का शोर। आफिसों में आपसी रोज़बों का शोर। समाज में जनता की परेशानियों का शोर। इसनामी शरीर में बीमारियों का शोर और इंसान के अंतस मन में मानन्यत मोहों का शोर। चारों तरफ शोर ही शोर, वक्त की सुई अवश्य ही किसी अनावादी दिवश की और गूँगी हुई प्रतीत हो रही है।

यह स्थिति आज किसी एक मानव, एक समाज अनुभव किसी एक देश की नहीं अपित संपूर्ण विश्व ही इस स्थिति की भयानकता में है। क्या है यह जड़ताल जिससे कोई भी अपूर्त नहीं है ? हो भ्रष्टाचार यही नाम तो है जिसे हम सब सुनह से रात तक बार बार सुनते हैं, परन्तु सबसे बड़ी विधिवा यह है कि इस भ्रष्टाचार को समाप्त करने के लिए, जो प्रावस किए जाते हैं? वे सब इसके शिकार हो जाते हैं। प्रावस अब भी हो रहे हैं, परन्तु प्रावक्तार यही नहीं कई विवरण तो इसके हताश हो चुके हैं, उनके अनुभाव अब एक ही समाधान शेष है कि सुविधा रचने वाला ही कोई उपाय निकालेगा और कोई चमकक मेरे इस संस्था से हमें सूचना कर सकता है।

स्वामी विवेकानंद ने कहा है जब जब समाज पर दुखों के ऐसे बादल उमड़े, कि उसे कोई मार्ग नहीं मिला तब तब अध्यास ने उसके मार्ग प्राप्त किया है। सत्य ही है, जहाँ मानवीय बुझ की सीमा समाप्त हो जाती है तीव्र वहाँ से अलस की तार प्राप्त होती है। मनुष्य जीवन पाप और पुण्य का संग्रह है, सभी की जिन्दगी में कम या ज्यादा, पाप और पुण्य आते है पर जब पाप का पलड़ा भारी और पुण्य का पलड़ा हल्का होता है तो समाज में असमृताप्न पैदा होता है यथासाधिक पाप का कारण भ्रष्टाचार है। उस पाप या असमृतापन से गरीबी, बेकाबू, बेदमानी, अन्याय, अशांति, हिंसा तथा युद्ध होता है। यह कठु सत्य है, आज भ्रष्टाचार का सामाजिक पूरी तरह फैल गया है कोई भी व्यक्ति समाज या देश इससे अशूदा नहीं है। जोध ने मनुष्यों को इस तरह जड़क लिया है कि सभी अत्याचार की ओर जा रहे हैं शासनों में भी “लोगों पापस्त करणाम्” ही कहा गया है। भ्रष्टाचार एक नासुर की तरह हमारे समाज को खोलता कर रहा है जससे जड़ें पूरे समाज में दीमक की तरह फैली हुई है। जहाँ आज सारे प्राव विकल होते दिखाई दे रहे हैं, मानना के इस भ्रष्ट आचरण को सुधारने में, वहाँ अब आवश्यकता है उन संत महापुरुषों की जो अनुमत मंचन की प्रक्रिया के माध्यम से इस विश्व वसी महासागर के मध्य रहकर ही उसी श्रेष्ठ प्रक्रिया के आचरण पर भ्रमण की सार्थक कर इंसान के जीवन को पूनः श्रेष्ठ गुणों से युक्त कर नजरबंद के द्वारा सुधित का अलक्ष कर सके।

वास्तविक रूप में यही एक अकटूब सत्य है, कि इंसान के जीवन में जब एक तलवेता महापुरुष का आमर्शान प्राप्त होता है तो वह मानव को अमूल्य बद्धान प्राप्त करते हैं और उस बद्धान को प्राप्त करने पर होता है भ्रष्टाचार का अनुभव और मंचन-अत्याचार मंचन। इस मंचन के द्वारा सबसे पहले व्यक्ति के मन में बसी बुझाईयाँ बिखरतीयाँ व निर्बलताएँ बाहर आती है दूसरे शब्दों में कहें तो ज्ञान शक्ति के द्वारा वे नष्ट हो जाते हैं, दूसरे चरण में मंचन द्वारा ज्ञान होता है वे गुण सम्मुख जो आचरण को शक्ति की और आसर करते है और इंसान को सदस्यारी बनाते है। इस प्रक्रिया को एक उद्धारण द्वारा समाधान चाहिए हूँ। मानना तो कि कोई व्यक्ति किसी विकट रोग से ग्रस्त है उसी औरपी देता है, वह औरपी धोले रोगों में रोग की दीवारों की समाप्त करती है फिर उसके बाद रोगों में शक्ति का संचार करती है उसे स्वस्थ बनाती है, लेकिन यह प्रक्रिया तभी सम्भव है जब औरपी ऊजाख हो ठीक ही तरह महापुरुष रूपी रोग को समाप्त करने की एक मार्ग औरपी है बद्धान। बद्धान ही मानव के भ्रष्ट मन से उपर इस भ्रष्ट आचरण रूपी रोग को समाप्त कर सदस्यारी को ज्ञान कर में सक्षम है। इतिहास गवाह है
संतो महाधर्मो ने ब्रह्माण्ड की इस औषधि द्वारा समाज की सद्भाव की दीर्घ से बौद्धशर आगे का मार्ग प्रशस्त किया है अद्यों शंकरेचार्य जी, महावीर स्वामी महासा वु, गुरु नानक देव जी, चैतन्य महाप्रभु, संत सुकराल, स्वामी विवेकानन्द, महावीर दयानन्द सरस्वती जैसे अनन्त महाधर्मो ने इसी ब्रह्माण्ड के सामार्थ्य को सिद्ध किया।

सार रूप में यही कहना उचित होगा कि भ्रष्टाचार और अनैतिकता से व्रत हुए समाज को पुनः नवजीवन प्राप्त करने के लिए संकल्प लेना होगा तथा किसी तेवथा के मार्गदर्शन में वही श्रेष्ठ मार्ग मानव को भ्रष्टता से सद्भावितों की और ले जाएगा। निश्चित रूप से तब हर इंसान विश्वस्तरीय नैसर्गिक जीवन की कामना कर सकता है भ्रष्टाचार से लड़ने के लिए जनता को और अधिक जागरूकता बनाना होगा और दुःखित मुद्र से बचने की होगी। तभी भ्रष्टाचार रुपी इस दानव से लड़ सकेंगे। ना केवल कामना, अपितु यह मनुष्य अपने सच्चे पुरुषत्व से इस जीवन और संसार को सुखमय आन्दोलन बना सकता है जैसा कि हमारे शास्त्र कहते हैं:—

“उदारतः ते पुरुष नायिनीयान्न जीवितान्न पददत्ती कुमाबिं”
अर्थत् “हे पुरुषार्थि मनृथर तृ त्यावभ न त हेदायि है अयोगाशा नै है अपने जीवन को सफलता की ऊंचाई तक ले जाने के लिए विचार ने तुझे पूर्णता: समय बनाया है”।
“जीत उक्तों को ही मिली जो हार से डट कर लड़े।
हार के डर से डिग्रे जो हो भारवाशी पड़े।
हार विजय संकल्प के पर चूकती देखी गई।
जीत किसान जो बचे हो सिर्फ को बोटी खड़े।”

**HEALTH TIPS**
Madhu Badhwar

- Go for regular morning/evening walks. Walking increases muscle tone & bone density, also reduces the risk of diabetes.
- To heal sores in mouth, drink two or three teaspoons of honey everyday.
- Cut back on salt: Health Organization recommends no more than five grams a day.
- Garlic is the mother of all cures. Researchers found that 5ml of garlic extract lower levels of a disease-causing chemicals by up to 48 percent.
- Carrot juice on empty stomach in morning prevents premature ageing.
- To combat indigestion and discomfort after a rich and heavy meal, mix 1 tsp of ginger juice along with 1tsp of lemon juice along a little sugar and drink it.
- Drink a cup of herbal tea, one of the best ways to overcome to pain particularly for tension headaches and migraines.
- Mix a tsp of curd, fresh lemon juice and honey and apply it on the face. It lightens skin color.
- Tomatoes contain iron and are rich in vitamin A. Recommended if you want to reduce your weight. It also combats cancer.
- Garlic-Raw, cooked or granulated, in all forms contains cholesterol fighting compounds. Eat it, your heart will love it.
- Apply coconut oil mixed with fresh lemon juice to cure dandruff. This is an excellent home remedy for dandruff.
- Mix a little camphor with finely ground coriander seeds and apply the paste to the forehead. It quickly relieves headaches.
- Consuming fruits as it is, is lot more healthier than consuming fruit juice.
- Green tea has anti-ageing properties. Switching to green tea can keep your skin youthful for a longer time.
- 4 things to avoid if you have too much flatulence: cabbage, cauliflower, broccoli & baked beans.
- Have honey everyday. It is an excellent energy booster, helps in calcium utilization, aids digestion, helps reduce nasal congestion & is good for your heart.