

MINISTRY OF HEALTH & FAMILY WELFARE
DEPARTMENT OF AYURVEDA, YOGA & NATUROPATHY, UNANI, SIDDHA AND
HOMOEOPATHY (AYUSH)

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PRESS RELEASE

Comments of the Department of AYUSH on
“Heavy Metals in Ayurvedic Medicines” article
published in JAMA, August 27, 2008.

Dr. Robert B. Saper of Department of Family Medicine, Boston Medical Center along with others had published an article in JAMA, December 15, 2004 “Heavy Metal Content of Ayurvedic Herbal Medicine Products” which on the basis of testing of 70 samples of herbal medicinal products collected from grocery stores of Boston Area for heavy metals concluded that one out of every 5 Ayurvedic Herbal Medicinal Products originating from South Asia and available in Boston South Asian grocery stores contains potentially harmful levels of lead, mercury and/or arsenic. This article was widely reported in the Indian print media. In spite of methodological infirmities in the study carried out by Dr. Robert Saper and his associates, the Department of AYUSH enforced mandatory testing for heavy metals in respect of Ayurveda, Siddha and Unani herbal products being exported from India w.e.f. 1.1.2006. Testing for heavy metals and other contaminant in Ayurveda, Siddha, Unani products is already a part of Good Manufacturing Practices notified in 2003.

A project for Physico chemical characterization and toxicity studies of 8 widely used Bhasmas (Rasa Aushadhies) was also sanctioned under the Golden Triangle Project which is being carried out by various laboratories of CSIR i.e. Indian Institute of Toxicological Research (IITR), Lucknow, Indian Institute of Chemical Technology (IICT), Hyderabad. Under this project, one of the reputed manufacturers of Rasa Aushadhies was chosen for manufacturing of the selected Rasa Aushadhies as per the classical texts which were made available to CSIR laboratories for physio chemical characterization and their toxicity studies. On the basis of 28 days toxicity studies, all the 8 Rasa Aushadhies have been found to be non-toxic. 90 days chronic studies are under progress. CSIR would be getting the results of this scientific research published to set at rest doubts regarding the safety of Rasa Aushadhies prepared properly as per

classical texts. Further, the work of finalizing SOPs for the various herbo metallic compounds (Rasa Aushadhies) used in Ayurveda has been undertaken by the Ayurvedic Pharmacopoeia Committee of India. Supplementary Good Manufacturing Practices for Rasa Aushadhies have also been prepared of which draft publication has been done.

Samples of 600 Indian medicinal plants collected from the wild as well as various medicinal plant gardens in India by the Council for Scientific Research in Ayurveda and Siddha were sent to the Indian Institute of Toxicological Research (CSIR), Lucknow, Sri Ram Institute of Industrial Toxicology, New Delhi and Centre for Research in Indian Medicine, Shastra University, Thanjavur. The test reports received from these three laboratories disclose that Lead, Mercury and Arsenic have not been found in these 600 Indian medicinal plants samples above the permissible limits laid down by WHO which is 10ppm for Lead, 1ppm for Mercury and 3ppm for Arsenic. This study clearly indicates that Indian medicinal plants collected from the wild or cultivated have been found to be free from lead, mercury and arsenic contamination contrary to the claim made by Dr. Robert Saper et al in their second article "Lead, Mercury and Arsenic in US- and Indian- Manufactured Ayurvedic Medicines sold via the Internet" published in JAMA, August 27, 2008.

The bias of Dr. Saper against Ayurvedic medicines becomes very apparent from the fact that he has included even those Ayurvedic medicines being sold in USA in Table 3 of the above mentioned article in which lead is below WHO's maximum permissible limit of 10ppm. Further, as per Dr. Saper's article, these medicines are sold by internet which does not indicate the source of their origin. Further, some of the medicines mentioned in Table 3 of the article, namely Akangvir Ras, Agnitundi Bati, Arogyavardhini Bati are herbo metallic compounds which contain these metals as therapeutic agents after purification process. Dr. Saper has visited India and has been in touch with several Ayurveda experts and is fully aware that these herbo-metallic preparations used in Ayurvedic system of medicine contain heavy metals like lead, mercury and arsenic as therapeutic agents after proper de-toxification process and no significant adverse drug reactions have been reported regarding their use in India. Dr. Saper is also fully aware that a high level scientific research is being undertaken in India for physio chemical characterization and safety of herbo metallic preparations for Rasa Aushadhies.

It needs to be emphasized that as per the directions issued by Department of AYUSH, herbo metallic compounds are not being officially exported because of heavy metal concerns and only purely herbal Ayurveda, Unani and Siddha medicines are being exported from India

with effect from 1.1.2006 after certification of heavy metals below the permissible limit by the manufacturing unit. In view of the above, the above mentioned article of Dr. Saper and his associates is seriously flawed and discloses a strong bias against Ayurvedic medicines. Indian scientists and research institutions will be responding to the issues raised by Dr. Saper, howsoever flawed they may be, through research articles based on their work on Ayurvedic medicines in due course.

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