

## Hair Analysis

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It's nonsense like this that gives the field of hair analysis its shady reputation. I'm afraid that as long as hair analysis laboratories continue to offer their services to an unsupervised, untrained general public and continue to write suggested diagnoses in their printouts there will continue to be heavy criticism of the whole field. And deservingly so! Hair analysis laboratories will have to unlock themselves from the mentality of doing these things as well as recommending supplements before they can earn the respect of responsible physicians and medical associations. Rather than criticize the data in Dr. Barrett's article further, I think the representatives of Doctors Data Inc. and Trace Minerals International would be better off in the long run to seriously consider cleaning up the rather messy field of hair analysis first.

Despite the many drawbacks and irreproducible results of many accredited blood testing facilities, these laboratories have a great more credibility than those offering hair analysis simply because they only accept samples from licensed practitioners. Blood testing laboratories have quality control standards to abide by as well as other professional standards to comply to. In Canada, at least, all blood testing laboratories are closely scrutinized by government and other health protection licensing bodies. Licenses are frequently lifted if the labs don't "measure up." If this sort of scrutiny was applied to hair analysis laboratories, I very much doubt there would be any more articles like "Commercial Hair Analysis, Science or Scam?"

I sincerely hope that the hair analysis industry takes this criticism as something to learn from rather than something to be defensive about. After all, hair analysis, done correctly and interpreted together with other clinical data (patient history, dietary analysis, physical examination and blood and urine tests) provides some very useful data about the health of a given patient that could not as easily be determined by other means. In particular, in the area of heavy metal overburdening (especially lead and cadmium), hair analysis is superior, as an early warning screening tool, to blood or urine testing. Let's not spoil it with unprofessional application and nutritional supplement profiteering.

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## Asthma and Metabisulfite

Editor to J.A.M.A.:

An asthmatic friend of mine had several experiences of getting sicker when she was medicated for asthma. While hospitalized, her doctor insisted on giving her Alupent. After she left the hospital, she showed me the Alupent label and asked if I knew why it would make her so sick. The label listed metabisulfite as an ingredient. Since this substance is known to cause trouble in asthmatics, it is very odd to find it in an asthmatic drug.<sup>2</sup> I don't find metabisulfite listed as an ingredient of Alupent

in the PDR or other drug manuals, and the physicians I have mentioned it to were surprised. Sudden death from "paradoxical bronchospasm" would not be paradoxical at all. Raymond Peat, Ph.D.

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### Reference

Towns SJ and CM Wellis, Acetylsalicylic acid and sodium metabisulfite in chronic childhood asthma, *Pediatrics* 73 (5): 631-637, 1984.



Dear Doctor Peat:

This will acknowledge your letter of August 24, 1985. I regret that in view of the many submissions we receive and the premium on space, we were unable to assign the necessary priority to the letter for publication in the *Journal*. We have forwarded your letter to Boehringer Ingelheim, Ltd., and asked them to respond to you directly.

Drummond Rennie, M.D.  
Editor, Letters Section  
*JAMA*  
535 North Dearborn St.  
Chicago, IL 60610



Dear Dr. Peat:

Thank you for your interest in Alupent® Inhalant Solution 5% brand of metaproterenol sulfate. Dr. Drummond Rennie, Editor of the Letters Section, *Journal of the American Medical Association* advised us that you are concerned with its use as a bronchodilator in the asthmatic population since this product contains sodium metabisulfite.

The use of sulfiting agents as food and drug additives has recently been found to be responsible for adverse reactions which may result in life-threatening asthma and anaphylaxis (Jamieson D.M. et al., *Ann Allergy* 54:115-121, 1985). The generation of SO<sub>2</sub> by the reaction of sulfites with water can provoke bronchospasm in some patients (Tashkin D.P., *West J Med* 140 (1): 82-83, 1984). Paradoxical bronchospasm can occur following the administration of aqueous inhalant solutions containing the metabisulfite preservative, although whether this phenomenon is actually due to the presence of metabisulfite, is uncertain.

Koepke et al. (Koepke J.W. et al., *J Allergy Clin Immunol* 72 (5):504-508, 1983) observed experimentally that a significant amount of SO<sub>2</sub> was released during standard nebulization of four commercially used bronchodilators, viz-a-viz isoproterenol, metaproterenol, isoetharine, and racemic epinephrine. The SO<sub>2</sub> concentrations varied from 0.1 to 6.0 ppm which can induce broncho-constriction in asthmatic patients. It was observed that metaproterenol solutions were associated with the lowest SO<sub>2</sub> levels with the least lot-to-lot variation.

In asthmatics, bronchospasm can be produced by as little as 5 mg of oral sulfite or by inhalation of 1 ppm SO<sub>2</sub> over 10 to 30 minutes. In nonasthmatics, bronchospasm can be caused by inhalation of SO<sub>2</sub> in a concentration of 6 ppm (Jamieson D.M. et al., *Ann Allergy* 54:115-121, 1985).

The incidence of metabisulfite sensitivity in a random asthmatic population has been found to be 8.2%: five of 61 asthmatics without history of metabisulfite sensitivity who

received oral challenges developed bronchospasm (Jamieson D.M. et al., *Ann Allergy* 54:115-121, 1985). Hypersensitivity reactions to sulfites are unpredictable and the severity will vary with the degree of airway irritability and the sulfite concentrations in foods or drugs (Twarog F.J. and Leung D.Y.M., *JAMA* 248 (16): 2030-2031, 1982). There are insufficient data to indicate which doses are most likely to evoke reactions in sulfite-sensitive individuals. However, it has been found that sensitive asthmatics may develop bronchospasm during exercise from inhaling as little as 0.1 ppm of SO<sub>2</sub> (Jamieson et al., *Ann Allergy* 54:115-121, 1985).

ALUPENT® 0.6% Inhalant Solution Unit Dose Vials do not contain sodium metabisulfite. In the near future, subject to FDA approval, we plan to market a reformulated ALUPENT® 5% Inhalant Solution in which sodium metabisulfite is replaced by a different preservative.

We take pleasure in enclosing a selection of articles pertaining to metabisulfite sensitivity and hope you will find this information useful. Please do not hesitate to contact this department whenever we can be of further assistance.

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## Cellular Therapy Not Legal in Nevada

Editor:

I believe a retraction is in order concerning the alleged legalization of Cellular Therapy in the State of Nevada.

According to the information this Clinic has received from Mr. Elliot King of the Nevada State Board of Pharmacy, who approves any and all drugs used in the State of Nevada, there has been no legalization of cell therapy in the State of Nevada.

I do know that American Biologics has prepared and done extensive research in cell therapy and is using cells specially made in Mexico under clinical standards. We have sent many patients to Mexico for this kind of therapy and if it were legal, we would be doing that treatment here in Las Vegas.

We have also learned that several legislators and the wife of a highly placed official in Nevada has been taking cellular therapy, in Nevada, with imported material which is not legal.

We do propose at the next Nevada Legislature that we shall present the excellent research done over the past three years by American Biologics in Mexico and request the Legislature to place the same standards as are placed on Laetria and Gerovital — that is, the drug be

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