There are significant health benefits of Horsetail despite any current confusion. Horsetail may break down thiamine B1 and may cause thiamine deficiency. This has been largely reported from studies done on animals only. There are no reliable reports of this interaction in humans. In the last eight years of recommending this very specific plant species Equisetum arvense young shoots (embryonic plant extracts), myself and other practitioners have never observed this plant to cause thiamine deficiency or toxicity from its alkaloids content.

In the spring, prior to harvest, a competent Botanist from the University of Bari, Italy, first will identify the correct plant species. Then the young shoots of fertile stems are picked by Forza Vitale laboratory staff. Equisetum arvense contain higher amounts of Ash (7,000 - 242,000 ppm), which makes this plant quite alkaline and further helps in the neutralization of thiaminase enzymes activity, if any. Furthermore, liquid and gas chromatography HPLC and electronic microscopy are then performed. Forza Vitale has never identified thiaminase activities or that of containing any toxic alkaloids like the ones found in Equisetum palustre. Although it does contain small trace amount of nicotine (0.00004%) it does NOT contain the two known toxic alkaloids palustrine, and palustrinine, which are only found in Equisetum palustre. As you can see, the problems mainly arise from the difficult task of identifying the correct specie.

In addition, the fresh tissues are extracted in 60% organic grape alcohol and organic red palm glycerine. The Spagyric method by which these plants are macerated further contributes to neutralize thiaminase enzymes activity. The raw material is burnt and subsequently filtered, then returned to the extracts for obtaining all of its oligo-elements as a finished product. Between all three factors of alkalinity, alcohol percentage and heating of the residual raw material insures no thiaminase activity.

The very vague and obscured indications written everywhere on the Internet are almost all identical; cutting and pasting information stating poor grading efficacy for osteoporosis. Conversely, to all the before-and-after bone density testing’s performed on over one hundred diagnosed individuals as having osteopenia or osteoporosis, after
3 to 6 months all bone densities had either returned to normal or were significantly improved. This was accomplished at very small doses of only 5 drops three times daily for osteopenia and 10 drops three times daily for osteoporosis. The dosages are far smaller than what is normally recommended by many other products on the market today. The concentration is also much lower, 1:20 contrary to the usual 2:1 but do not let this make you think that this is less potent, to the contrary, less is more when using embryonic plant extracts.

This knowledge brings understanding and further adds a measure of safety in the event of adulteration of any products by cross breeding plant species. It also explains the many conflicting and confusing reports on Equisteraceae family saying that they contain these toxic alkaloids, which obviously, is not the case.

**Noteworthy:** For those of you who know me, I very rarely make such a general statement towards any plant as I am about to make. I usually steer far away from panacea statements like this one; however, I know of no other plant as effective as Equisetum arvense embryonic young shoots for osteoporosis and reversing low bone density. The results were accomplished without the help of calcium or vitamin D synthetic analogues and at such a small dosage, of fats and the processing of many chemicals, including hormones and of course, xenobiotics. Furthermore, coffee stimulates gastric acid secretion and increases diuresis; it leaches the calcium out of your bones. Its acid pH keeps inflammation elevated. Coffee also potentates Horsetail diuresis activity further preventing its absorption.

Warm regard to all,
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Master Phytotherapist and Professor of Phyto-Pharmacovigilance