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## Trials of improved practices (TIPs) to enhance the dietary and iron-folate intake during pregnancy: A quasi experimental study in a rural area of India

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## Healthy food for decreasing the risk of age-related disorders

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Age-induced medical disorders are modern problems in medicine and have become a focal point for public health concern due to the aging of the world population. The main barrier for solving this problem is, in the literature available for us, the absence of a reliable, universal biomarker for detection of the functional state of the whole organism though there are different methods for detection of the functional state of individual organs. We believe that metabolic controlling of cell hydration could serve as a universal biomarker for estimation of the effect of different chemical and physical factors, including food and drinking water, on the functional state of the organism. In our previous study it was shown that cell pathology, including aging, leads to the dysfunction of  $\text{Na}^+/\text{K}^+$ -ATPase  $\alpha 3$  isoform-dependent intracellular signaling system controlling cell hydration. Therefore, we suggest that activation of  $\alpha 3$  isoform-dependent cell hydration could serve as a marker for estimation of bioavailability of food and drinking water. For this purpose elaboration of a new non-invasive device with corresponding software for detection of muscle hydration based on frequency-dependent characteristics of muscle impedance is suggested. The experimental data that prove our suggestion will be demonstrated in the lecture.

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