

No scientific basis for concluding that exposure to phthalates leads to reduced sexual interest in women

Brussels 27 October 2014 - On 21 October 2014, Dr. Emily Barrett, of the University of Rochester School of Medicine in New York State, presented a study under a speculative and unjustified title claiming that “environmental phthalate exposure is associated with low interest in sexual activity in premenopausal women”. The study, for which only a short abstract has so far been published, aimed at establishing a potential link between sexual health self-assessment reports collected from 360 American women and the presence of urinary metabolites of DEHP.

Scientific experts from ECPI – The European Council for Plasticisers and Intermediates have reviewed the published abstract and concluded that the statement published in the “Fertility and Sterility” journal is not supported by the scientific data provided. Looking at the chosen methodology, there is a striking inconsistency between the title of the study, referring to premenopausal women, and the abstract, which refers to women who became pregnant (“prior to conception”).

Moreover, no interviews were conducted and only questionnaires were used instead to collect information on sexual problems. In this regard, it is not disclosed whether the investigators knew the levels of DEHP metabolites for specific individuals when evaluating the questionnaires. If this information was known by the investigators, answers to these questionnaires could be subject to interpretation bias. The quality and consistency of the responses would also be an important influencing factor - no information is provided on this aspect either.

It is worth noting that, whether the study includes premenopausal or pregnant women, both groups are naturally subject to hormonal changes and imbalances. This could in itself be a confounding factor of the effects being investigated (i.e. vaginal dryness and drop of libido).

The study also states that “similar, but non-significant associations were seen for all other phthalate metabolites measured”, meaning that a statistically significant association was only observed for one metabolite of DEHP.

Association does not mean causation and in this particular case it could be simply a random correlation. The study only analysed metabolites of one specific phthalate plasticiser (DEHP) hence, it is not appropriate to extrapolate to all phthalates which are a wide range of substances. Only some are classified for reproductive effects (based on animal studies).

ECPI is committed to the safe and sustainable use of plasticisers and actively supports testing and research. In Europe, the use of these substances is regulated by REACH as well as other EU legislation. REACH is the most comprehensive and stringent chemical regulation in the world and is helping to ensure the safe use of plasticisers and other chemical substances.