

## Prison study to investigate link between diet and behavior

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Trials will soon be underway in three UK prisons to investigate the link between nutrition and behaviour. Funded by the Wellcome Trust, the study will look at which nutrients are most important and at what dosage.

In the study, volunteers from three young offenders institutions housing male prisoners aged 16 to 21 will take nutritional supplements on top of their normal choice of food to ensure they receive the necessary vitamins, minerals and essential fatty acids to meet daily guidelines. The results will be compared with a control group under double blind conditions. Researchers will monitor how levels of nutrients affect a range of behaviours including violence, drug-related offences and incidents of self-harm.

The new trials build on previous research carried out at the then maximum security HM Young Offenders Institution Aylesbury, Buckinghamshire, funded by Natural Justice, a research charity that investigates the social and physical causes of offending behaviour. In that study, nutritional supplements were given to ensure that inmates' diets reached recommended UK dietary standards. The researchers found that the prisoners who consumed the active nutrient capsule committed on average 26% fewer disciplinary offences overall than those taking the placebo and 37% fewer violent offences

"Our initial findings indicated that improving what people eat could lead them to behave more sociably as well as improving their health," said Professor Stein. "This is not an area currently considered in standards of



dietary adequacy and little is currently known about optimum nutrient dosages required for brain function or behaviour. We are not saying that nutrition is the only influence on behaviour but we seem to have seriously underestimated its importance."

The new study will be led by Professor John Stein at the University of Oxford and Natural Justice. Professor Stein and colleagues believe that the reason why supplements can have such a large effect is because the proper functioning of nerve cell membranes and signalling molecules depends upon adequate amounts of minerals, vitamins and essential fatty acids in the diet.

"This is a positive approach to preventing the problems of antisocial and criminal behaviour," says Bernard Gesch, Director of Natural Justice. "It is simple, it seems to be highly effective and the only 'risk' from a better diet is better health. It is a rare win-win situation in criminal justice."

The study is being funded through a £1.4 million award from the Wellcome Trust, the UK's largest medical research charity.

"If this study shows that nutritional supplementation affects behaviour, it could have profound significance for nutrition guidelines not only within the criminal justice system, but in the wider community, in schools, for example," says Dr Mark Walport, Director of the Wellcome Trust. "We are all used to nutritional guidelines for our physical health, but this study could lead to revisions taking into account our mental health, as well."

The new three year study will start in May and has been facilitated by the Ministry of Justice, HM Prison Service and the Scottish Prison Service. It will be carried out at three HM Young Offenders Institutions – Hindley, Greater Manchester; Lancaster Farms, Lancashire; and Polmont, Falkirk.



Prisons Minister David Hanson MP said: "I welcome this study by the Wellcome Trust and I hope that it will shed further light on the possible links between nutrition and behaviour among young people. Sound, further research in this area will have the potential, dependent on the findings, to inform the development of policy on behaviour management."

Source: Wellcome Trust

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