

Preserving skin elasticity could unlock secrets for better body health

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University of Manchester scientists have begun a study to understand the decline of ‘springiness’ in our bodies' skin and tissues as we get older.

Lead researcher Dr Michael Sherratt says the decline in elasticity is what causes wrinkly skin in older age but that it also occurs deep inside our bodies, in blood vessels and lungs, significantly reducing our health. His work is at the forefront of exciting new research that could help fight life-threatening conditions like pneumonia or aneurysm.

Dr Sherratt is a leading scientist on the understanding of ‘fibrillin’. This is the protein that allows our skin, lungs, blood vessels and many other parts to remain elastic and healthy rather than stiff and lifeless.

“Fibrillin becomes less effective as we age, increasing our likelihood of health problems as we grow older,” said Dr Sherratt, who is based in the University’s School of Medicine.

“We can’t replace it and we only have the fibrillin that was made when we were young, so taking care of it is vital. My research aims to increase our understanding of this vital protein, possibly paving the way for solutions such as new treatments or better and earlier diagnosis of problems. Alternatively it may suggest that there are lifestyle choices we can all make to help.”

Scientists already believe that raised sugar levels in diabetes are strongly related to the hardening of proteins, for example, so it is possible that

more research could show a wider relationship between sugar consumption and the elasticity of our fibrillin.

Recognising the importance of his research, Help the Aged has announced major financial support for his studies in Manchester through to 2010.

Dr Lorna Layward, Senior Research Manager of the Help the Aged Biomedical Research into Ageing programme, said: “We are very pleased to be funding Dr Sherratt’s work, which could contribute to bring better health and independence to older people in future.

“We normally think about flexibility in terms of exercises like yoga, which can be great for us at all ages, but Dr Sherratt is taking the idea of flexibility at the microscopic level and finding if there are ways to improve it. His findings may literally help us put a spring back into our lungs, arteries and eyes.”

Source: University of Manchester

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