

Under the Microscope **With Dr Jonathan Hodgson**

A chocolate bar a day may not keep osteoporosis away.

RPH Senior Research Fellow Dr Jonathan Hodgson is hoping to find the key to stronger bones by studying the relationships of tea and chocolate consumption with bone density and strength in older women.

“We initially looked at the link between tea consumption and bone density and found that there was about a three per cent higher bone density in those people who drank tea in comparison to non-tea drinkers,” Dr Hodgson said.

“Our results suggest a protective effect of tea on bone health.”

“Based on these results the research team decided to study the link between chocolate and bone density, since like tea it contains flavonoids.

“Flavonoids are compounds present in both tea and chocolate, and it has been suggested that flavonoids may be a component of tea that can benefit bone health.”

The study, done in conjunction with Sir Charles Gairdner Hospital and led by Dr Richard Price, included 1001 women between 70-85 years of age.

Women who ate chocolate daily were compared with women who rarely ate chocolate, less than once a week.

Bone density and strength measurements were made using three techniques, ultrasound, computed tomography and X-ray absorptiometry.

“From this study we found that older women who consumed chocolate daily had about a three per cent lower bone density and strength than those women who rarely ate it.”

Even though daily chocolate consumption was associated with lower mean bone density and strength, Dr Hodgson said that more studies needed to be done.

“This really is a chance finding and we don’t know exactly why chocolate consumption might weaken bones, therefore more studies like this need to be performed in other populations.”

Some of the factors that may influence bone density could be that chocolate is an important source of oxalate which is an inhibitor of calcium absorption and sugar may also increase calcium excretion.

“If these results are confirmed in other studies, this could have important implications for prevention of fracture,”

Dr Hodgson’s next study is into the effect of tea on the cardiovascular system.

“We will be testing the effect of tea consumption on blood pressure and cholesterol.”

“If anyone is interested in taking part in this study we are looking for people between the ages of 35-75 who would be willing to drink tea everyday for six months.”

“Since so many people drink tea it is important to study the long term effects of it.”

“We encourage people who would like to participate to call 9224 0313 to register their interest.”