Electronic Supplementary Material (ESI) for Food & Function. This journal is © The Royal Society of Chemistry 2024

# **Supplementary Materials**

**Supplementary Table 1** Osteoporosis Questionnaire

## **Supplementary Table 1 Osteoporosis Questionnaire**

Demographic Characteristics
1.ID number: Age Sex
<b>2.Educational status:</b> 1.□Illiteracy 2.□Elementary 3.□Middle school
4. □ High school or higher
<b>3.Marital Status:</b> 1. □ Married 2. □ Unmarried 3. □ Divorced 4. □ Widowed
4.BMI calculation: Height(cm): Weight(kg): BMI=
Living Habits
<b>1.Smoking behavior:</b> 1. □ Never 2. □ Current 3. □ Past <b>2.Drinking behavior:</b> 1. □ Never 2. □ Current 3. □ Past
Spicy Food Consumption
1. How often did you consume spicy food during the past year?
0. $\square$ Never or Seldom 1. $\square$ Less than once a week 2. $\square$ 1-2 days a week 3. $\square$ 3-5 days a week
4. □ Daily (4.1 □ 1 meal/day 4.2 □ 2 meals/day 4.3 □ 3 meals/day)
Medical History
1. Fracture history: $\square 0.\text{No}$ $\square 1.\text{Yes}$
2. Previous medical history: Thyroid disease □0.No □1.Yes Diabetes □0.No □1.Ye
Rheumatoid arthritis $\square 0.\text{No}$ $\square 1.\text{Yes}$ $\square \text{Other}$
3. Whether the father or mother had ever been diagnosed with osteoporosis: $\Box 0.\text{No}$ $\Box 1.\text{Yes}$
4. Have you ever received anti-osteoporosis drugs?
□0.No □1.Yes,
Physical Activity
1.Usually, the main forms of physical activity
1.  Walk Slowly 2.  Tai chi or Qigong 3.  Walk Briskly 4.  Swimming Leisurely
5. ●Ball Game (Basketball game, Soccer) 6. ●Hiking

#### **Bone Mineral Density and Blood Test Results**

### 1.Bone Mineral Density Examination

Part	BMD-Value (g/cm <sup>2</sup> )
Total Lumbar Spine	
Left Hip	
Femoral Neck	

#### 2.Blood Test

	Biochemical Markers of Bone Metabolism			
Biochemical Marker	Procollagen Type I-N-	β Cross-Linked C-telopeptide	Osteocalcin (ng/ml)	
	terminal Propeptide (ng/ml)	of Type I-Collagen (ng/ml)		
Value				
Biochemical Marker	Bone Alkaline Phosphatase	Serum Phosphorus (mmol/L)	Serum Magnesium (mmol/L)	
	(U/L)			
Value				
Biochemical Marker	Serum Calcium (mmol/L)			
Value				