Table 1

Risk factors for the development and progression of osteoarthritis

Generalised predisposition to OA	Factors associated with the development of knee OA	Factors associated with the progression of knee OA
Age - this is the strongest risk factor for OA	Age	Generalised OA
Family history of OA	Occupational factors (physical work load) e.g. farmers, construction workers	Varus alignment of the knee (bow-legged) and medial compartment knee OA (4-fold increased risk of radiographic progression)
Bone density - there is an inverse relationship between OA and osteoporosis although fracture risk is not reduced in OA	Physical sporting activity (highest risk in high-intensity sports)	Valgus alignment of the knee (knock-kneed) and lateral compartment knee OA (4-fold increased risk of radiographic progression)
Hormones/female gender - OA increases in incidence after the menopause. Oestrogen therapy may have a protective effect (weaker evidence)	Joint trauma (e.g. fracture through the joint line, meniscectomy, anterior cruciate ligament rupture)	Obesity, dependent on joint alignment (conflicting results)
	Obesity	Low bone density, age, presence of Heberden's nodes (conflicting evidence)
		Lower levels of vitamin D (conflicting evidence). Routine testing not recommended