

## APPENDIX 1: Search Strategy

### Obesity and Overweight

((((((((knee osteoarthritis) OR knee OA) OR knee osteoarthrosis) OR gonarthrosis)) OR osteoarthritis, knee[MeSH Terms])) AND (((((((((stage) OR grade) OR advanc\*) OR improv\*) OR progression) OR response))) AND (((((((((pain) OR mobility) OR physical function) OR disability) OR womac) OR vas) OR koos))) AND (((((((((overweight) OR BMI) OR obesity) OR body mass index) OR insulin resistance) OR glucose tolerance) OR weight loss) OR weight reduction) OR weight gain))

### Comorbidities

((((((((knee osteoarthritis) OR knee OA) OR knee osteoarthrosis) OR gonarthrosis)) OR osteoarthritis, knee[MeSH Terms])) AND (((((((((stage) OR grade) OR advanc\*) OR improv\*) OR progression) OR response))) AND (((((((((pain) OR mobility) OR physical function) OR disability) OR womac) OR vas) OR koos))) AND (((((((((diabetes) OR glucose tolerance) OR cardiovascular) OR comorbidity) OR depression) OR pulmonary))

### Occupational Factors

((((((((knee osteoarthritis) OR knee OA) OR knee osteoarthrosis) OR gonarthrosis)) OR osteoarthritis, knee[MeSH Terms])) AND (((((((((stage) OR grade) OR advanc\*) OR improv\*) OR progression) OR response))) AND (((((((((pain) OR mobility) OR physical function) OR disability) OR womac) OR vas) OR koos)) AND (((((((((occupation\*) OR profession\*) OR work) OR kneel\*) OR squat\*) OR lift\*) OR climb\*))

### Biomechanical Factors

((((((((((knee osteoarthritis) OR knee OA) OR knee osteoarthrosis) OR gonarthrosis)) OR osteoarthritis, knee[MeSH Terms])) AND (((((((stage) OR grade) OR advanc\*) OR improv\*) OR progression) OR response)) AND (((((((vas) OR womac) OR pain) OR physical function) OR mobility) OR koos)) AND (((((((((((biomechanic\*) OR valgus) OR varus) OR alignment) OR quadriceps) OR thigh muscles) OR orthos\*) OR splint) OR tape) OR brace) OR walker) OR insole\*) OR shoe\*) OR DASH cane\*))

### Physical activity

((((((((((knee osteoarthritis) OR knee OA) OR knee osteoarthrosis) OR gonarthrosis)) OR osteoarthritis, knee[MeSH Terms])) AND (((((((stage) OR grade) OR advanc\*) OR improv\*) OR progression) OR response)) AND (((((((vas) OR womac) OR pain) OR physical function) OR mobility) OR koos)) AND (((((((((((runner) OR Exercise) OR Exercise Therapy) OR physical activity) OR Resistance Training) OR rehabilitation) OR High-Intensity Interval Training) OR HIIT) OR marathon) OR running))

### Dietary exposures

((((((((((knee osteoarthritis) OR knee OA) OR knee osteoarthrosis) OR gonarthrosis)) OR osteoarthritis, knee[MeSH Terms])) AND (((((((stage) OR grade) OR advanc\*) OR improv\*) OR progression) OR response)) AND (((((((vas) OR womac) OR pain) OR physical function) OR mobility) OR koos)) AND (((((((((((food) OR carbohydrate) OR vitamin D) OR vitamin K) OR meat) OR proteins) OR vegetable) OR vegan) OR diet) OR fat) OR oil) OR fish) OR Mediterranean diet) OR DASH diet) OR ketosis) OR ketogenic) OR fasting) OR supplements)