

## Appendix

Conditions associated with the development of osteonecrosis (exclusion criteria for cases and controls):

- Fracture of the femoral neck
- Traumatic hip dislocation
- Slipped capital femoral epiphysis
- Following cervical osteotomy
- Sickle cell anemia
- Alcohol abuse
- Nicotine abuse
- Corticosteroid administration
- Rheumatoid arthritis
- Systemic lupus erythematosus
- Chronic pancreatitis
- Occlusive vascular disease
- Osteomyelitis
- Radiation
- Gaucher disease
- Renal transplantation
- Caisson disease
- Pregnancy
- Tumor
- Leriche syndrome
- Coagulation deficiencies
- Cretinoid epiphyseal dysgenesis
- Dyschondroplasia
- Charcot arthropathy