

Table S1. Excluded studies, reason for exclusion and references

| Author, year | Study design | Reason for exclusion |
|------------------|--|--|
| Akesson 1999 | Cross sectional and prospective cohort | Low physical load (dental professions), only symptoms as outcome. Focus on disorders of neck and upper extremities, physically low workload, no quantitative data of exposure. |
| Andrianakos 2006 | Cross sectional prevalence | No physical workload |
| Bieleman 2010 | Cross sectional | No physical workload |
| Cho 2015 | Cross sectional | No physical workload |
| Cleveland 2013 | Cross sectional | No physical workload |
| Cooper 1998 | Case control | No physical workload. Occupational aspects: s. Coggon 1998 |
| Cumming 1993 | Case control | No physical workload |
| Cunningham 1992 | Case control | Inadequate information to allow fair assessment of quality. Poor design, only farmer as job title. |
| Dahaghin 2005 | Cross sectional | No physical workload |
| DeZwart 1997 | Cohort | Only musculoskeletal symptoms as outcome. No quantitative data of exposure, no comparison between exposed and not exposed. |
| Drawer 2001 | Cross sectional | Cases ascertained by self-reported prior coxarthrosis diagnosis. No physical workload. |
| Goekoop 2011 | Cross sectional | Not relevant. The study population are very old people (>85 years), who has very good functions. Strong selection bias! |
| Gomez 2003 | Cross sectional | Only self-reported joint pain as outcome |
| Gouttebarga 2015 | Review | Focus on former athletes |
| Holmberg 2002 | Case control | Only hip pain or surgery as outcome, no exposure data. |
| Jacobsson 1987 | Cross sectional | Not relevant (no risk assessment). Weaknesses. Inadequate exposure definition, likelihood of recall bias, lack of consideration of potential confounders, and cross-sectional design. |

| Author, year | Study design | Reason for exclusion |
|----------------|-----------------|--|
| Jacobsen 2004b | Cohort | Not relevant, study only among subjects without hip osteoarthritis. Joint spaces were measured, but criteria for diagnosing coxarthrosis were not specified. See Jacobsen 2004a (included in this analysis). |
| Jacobsen 2005a | Cross sectional | See Jacobsen 2004a (included in this analysis). |
| Jacobsen 2005b | Case control | Not relevant, Patients with hip dysplasia, not hip osteoarthritis, no exposure assessment. |
| Järvholm 2008 | Cohort | Poor methodology. Not relevant. Exposure information limited only to job title. However there is no job title for farmer. |
| Juhakoski 2008 | Cross sectional | Only physical function as outcome. |
| Keskimäki 1996 | Cross sectional | Socioeconomic difference of surgery, no exposure data |
| Kettunen 2001 | Cross sectional | Cases ascertained by self-reported prior coxarthrosis diagnosis. Same subject as those in Kujala 2014. No physical workload. |
| Kim 2014 | Cross sectional | No physical workload |
| Kujala 1994 | Cohort | Same subjects as in Kettunen 2001. No physical workload. |
| Lau 2000 | Case control | See Lau 2007 (included in this analysis). |
| Lawrence 1966 | Case control | Outcome was rheumatoid arthritis, not coxarthrosis. No physical workload. |
| Lemasters 1998 | Cross sectional | Study on prevalence of musculoskeletal disorders, no data on coxarthrosis. |
| Lindberg 1984 | Cross sectional | Unquantified exposures, no risk estimates |
| Litwic 2013 | Review | Exposure not issued |
| Marti 1989 | Cohort | Observational study. Exposures due to sports (recreational or professional) rather than “standard” occupations. No physical workload. |
| Olsen 1994 | Case control | See Vingard 1991b (included in this analysis). |
| Rapala 2015 | Cross sectional | Not relevant, only patients with osteoarthritis. No healthy control person. |
| Reijman 2005 | Cohort | Study focused on progression from mild to severe coxarthrosis, not etiology of coxarthrosis. No risk assessment. |
| Rossignol 2003 | Cross sectional | Not relevant, no exposure assessment. Weaknesses. Lack of precise diagnostic criteria. Lack of information on potential confounders other than age and gender. Lack of quantitative exposure estimates. |

| Author, year | Study design | Reason for exclusion |
|----------------|-----------------|---|
| Rossignol 2005 | Cross sectional | Not relevant, no diagnosis information? Weaknesses. Use of prevalent cases. Lack of details on hip OA diagnosis. Limited, qualitative exposure definitions. |
| Sandmark 2000 | Cross sectional | Not relevant for topic. Cases ascertained by self-reported prior coxarthrosis diagnosis. |
| Schmitt 2004 | Cross sectional | Exposures due to sports (recreational or professional) rather than “standard” occupations, small sample size, no exposure assessment. |
| Schmitt 2006 | Cross sectional | Exposures due to sports (recreational or professional) rather than “standard” occupations; small sample size, no exposure assessment. |
| Seok 2017 | Cross sectional | Not relevant, no exposure information. |
| Shepard 2003 | Cross sectional | Cases ascertained by self-reported prior coxarthrosis diagnosis, no exposure assessment, injury as confounder? |
| Sobti 1997 | Cross sectional | Study focus on pain syndromes and stiffness. |
| Teichtahl 2015 | Cohort | Not relevant, outcome of study is not hip osteoarthritis. |
| Teitz 1998 | Cohort | Joint spaces were measured, but criteria for diagnosing coxarthrosis were not specified, no exposure assessment. |
| Tepper 1993 | Case control | Factors associated with hip osteoarthritis, but no data on occupation. |
| Toren 2002 | Cross sectional | No data on coxarthrosis, just quantification of time of tractor driving. Focus on vibration as exposure. |
| Typpö 1995 | Cross sectional | Unclear exposure categories. Lack of risk estimates. |
| Van Dijk 1995 | Cross sectional | No exposure data, joint disease in female ballet dancers |
| Vingard 1998 | Case control | See Vingard 1997b: included in this analysis |
| Vingard 1993 | Case control | Exposures due to sports (recreational or professional) rather than “standard” occupations, no occupational exposure. Same study group like Vingard 1991. |
| Xiao 2013 | Cross sectional | No data on coxarthrosis. |

This list is not exhaustive.

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