

Supplementary material 3: absolute and relative risk stratified by biological sex.

Table 1. Absolute and relative risk of hips with acetabular dysplasia to develop incident radiographic hip osteoarthritis in males.

Definition of AD	Total hips in group, n	Hips with AD, n (prevalence, %, 95% CI)	Hips with incident RHOA, n (prevalence, %, 95% CI)	Hips with AD and incident RHOA, n	Absolute Risk, % ***	Relative Risk (95% CI) ****
WCEA $\leq 25^\circ$	5,631	1,369 (24.3 (23.2-25.5))	77 (1.4 (1.1-1.7))	14	0.25	0.69 (0.39-1.23)
WCEA $\leq 20^\circ$	5,631	300 (5.3 (4.8-5.9))	77 (1.4 (1.1-1.7))	4	0.07	0.97 (0.36-2.65)
ADR ≤ 250	5,631	2,239 (39.8 (38.5-41.1))	77 (1.4 (1.1-1.7))	35	0.62	1.26 (0.81-1.97)
mAI $\geq 13^\circ$	5,631	105 (1.9 (1.5-2.3))	77 (1.4 (1.1-1.7))	1	0.02	0.69 (0.10-4.93)
WCEA $\leq 25^\circ$ & ADR ≤ 250 & mAI $\geq 13^\circ$ **	5,631	100 (1.8 (1.4-2.2))	77 (1.4 (1.1-1.7))	1	0.02	0.73 (0.10-5.18)
WCEA $\leq 25^\circ$ or ADR ≤ 250 or mAI $\geq 13^\circ$ ***	5,631	2518 (44.7 (43.4-46.0))	77 (1.4 (1.1-1.7))	39	0.69	1.27 (0.81-1.98)

AD: acetabular dysplasia. WCEA: Wiberg center edge angle. ADR: acetabular depth-width ratio. mAI: modified acetabular index. CI: confidence interval.

*The reference group contained hips free of AD and hips with only 1 or 2 measures of AD.

** The reference group contained hips free of any measure to define AD.

***The absolute risk was calculated using the following equation: (number of hips with AD and RHOA/Total number of hips in subgroup)*100%

****The relative risk was calculated using the following equation: (number of hips with AD & RHOA/ (number of hips with AD & RHOA + number of hips with AD only)) / (number of hips with RHOA without AD/ (number of hips with RHOA without AD + number of hips without AD and RHOA))

Table 2. Absolute and relative risk of hips with acetabular dysplasia to develop incident radiographic hip osteoarthritis in females.

Definition of AD	Total hips in group, n	Hips with AD, n (prevalence, %, 95% CI)	Hips with incident RHOA, n (prevalence, %, 95% CI)	Hips with AD and incident RHOA, n	Absolute Risk, % ***	Relative Risk (95% CI) ****
WCEA $\leq 25^\circ$	13176	3397 (25.8 (25.0-26.5))	301 (2.3 (2.0-2.6))	113	0.86	1.73 (1.37-2.18)
WCEA $\leq 20^\circ$	13176	864 (6.6 (6.1-7.0))	301 (2.3 (2.0-2.6))	30	0.23	1.58 (1.09-2.29)
ADR ≤ 250	13176	3678 (27.9 (27.1-28.7))	301 (2.3 (2.0-2.6))	109	0.83	1.47 (1.16-1.85)
mAI $\geq 13^\circ$	13176	292 (2.2 (2.0-2.5))	301 (2.3 (2.0-2.6))	13	0.10	1.99 (1.16-3.43)
WCEA $\leq 25^\circ$ & ADR ≤ 250 & mAI $\geq 13^\circ$**	13176	251 (1.9 (1.7-2.2))	301 (2.3 (2.0-2.6))	13	0.10	2.32 (1.35-3.99)
WCEA $\leq 25^\circ$ or ADR ≤ 250 or mAI $\geq 13^\circ$***	13176	4962 (37.7 (36.8-38.5))	301 (2.3 (2.0-2.6))	137	1.04	1.38 (1.11-1.73)

AD: acetabular dysplasia. WCEA: Wiberg center edge angle. ADR: acetabular depth-width ratio. mAI: modified acetabular index. CI: confidence interval.

*The reference group contained hips free of AD and hips with only 1 or 2 measures of AD.

** The reference group contained hips free of any measure to define AD.

***The absolute risk was calculated using the following equation: (number of hips with AD and RHOA/Total number of hips in subgroup)*100%

****The relative risk was calculated using the following equation: (number of hips with AD & RHOA/ (number of hips with AD & RHOA + number of hips with AD only)) / (number of hips with RHOA without AD/ (number of hips with RHOA without AD + number of hips without AD and RHOA))