Web-appendix 1 Search strategy

1	Sports
2	Athlet*
3	Players
4	1 OR 2 OR 3
5	prevent*
6	train*
7	prophyla*
8	5 OR 6 OR 7
9	injur*
10	groin
11	athletic injuries/prevention & control
12	cumulative trauma disorders/prevention & control
13	9 OR 10 OR 11 OR 12
14	4 AND 8 AND 13

Web-appendix 2 Detailed characteristics of the included studies and risk of bias assessment

Study (Setting)	Design	Exposure (h)	Statistics	Bias	Author's judgment	Support for judgement
Arnason et al. 2005 (Iceland)	Cluster-RCT	Intervention 14310 Control 14617	Not adjusted for clustering effects No intention-to-treat analysis	Random sequence generation (selection bias)	Unclear	Insufficient information about the sequence generation process to permit judgement of 'Low risk' or 'High risk'.
				Allocation concealment (selection bias)	Unclear	Insufficient information to permit judgement of 'Low risk' or 'High risk'. Concealment is not described or not described in sufficient detail to allow a definite judgement.
				Blinding of participants and researchers (performance bias)	High	Blinding of participants and researchers not possible in active prevention programs. No blinding or incomplete blinding and the outcome are likely to be influenced by lack of blinding.
				Blinding of outcome assessment (detection bias)	High	Blinding of outcome assessment (self-reported injury) not possible. No blinding of outcome assessment and the outcome measurement is likely to be influenced by lack of blinding.
				Incomplete outcome data (attrition bias)	Unclear	Insufficient reporting of attrition/exclusions to permit judgement of 'Low risk' or 'High risk'.
				Selective reporting (reporting bias)	Unclear	Insufficient information to permit judgement of 'Low risk' or 'High risk'.
				Other bias	High	Not taking possible clustering into account in analysis.
van Beijsterveldt et al. 2012 [a] (Dutch)	Cluster-RCT	Intervention 21605 Control 22647	Not adjusted for clustering effects Intention-to-treat analysis	Random sequence generation (selection bias)	Unclear	Insufficient information about the sequence generation process to permit judgement of 'Low risk' or 'High risk'.
				Allocation concealment (selection bias)	Unclear	Insufficient information to permit judgement of 'Low risk' or 'High risk'. Concealment is not described or not described in sufficient detail to allow a definite judgement.
				Blinding of participants and researchers (performance bias)	High	Blinding of participants and researchers not possible in active prevention programs. No blinding or incomplete blinding and the outcome is likely to be influenced by lack of blinding.
				Blinding of outcome assessment (detection bias)	High	Blinding of outcome assessment (self-reported injury) not possible. No blinding of outcome assessment and the outcome measurement is likely to be influenced by lack of blinding.
				Incomplete outcome data (attrition bias)	Low	Missing outcome data balanced in numbers across intervention groups, with similar reasons for missing data across groups.
				Selective reporting (reporting bias)	Low	Published study protocol, with pre-specified primary and secondary outcome exists.
				Other bias	High	Not taking possible clustering into account in analysis.

Web-appendix 2 Detailed characteristics of the included studies and risk of bias assessment (continued)

Engebretsen et al. 2008 * (Norway)	RCT	Intervention 217±94 Control 210±103	Intention-to-treat analysis	Random sequence generation (selection bias)	Unclear	Insufficient information about the sequence generation process to permit judgement of 'Low risk' or 'High risk'.
				Allocation concealment (selection bias)	Unclear	Insufficient information to permit judgement of 'Low risk' or 'High risk'. Concealment is not described or not described in sufficient detail to allow a definite judgement
				Blinding of participants and researchers (performance bias)	High	Blinding of participants and researchers not possible in active prevention programs. No blinding or incomplete blinding and the outcome is likely to be influenced by lack of blinding.
				Blinding of outcome assessment (detection bias)	High	Blinding of outcome assessment (self-reported injury) not possible. No blinding of outcome assessment and the outcome measurement is likely to be influenced by lack of blinding.
				Incomplete outcome data (attrition bias)	Unclear	Insufficient reporting of attrition/exclusions to permit judgement of 'Low risk' or 'High risk'.
				Selective reporting (reporting bias)	Unclear	Insufficient information to permit judgement of 'Low risk' or 'High risk'.
				Other bias	High	The possibility that several players in the intervention group received other intervention programs, than the groin injury programme
Holmich et al. 2010 [a] (Denmark)	Cluster-RCT	Not reported	Adjusted for clustering effects ICC=0.0 No intention-to-treat analysis	Random sequence generation (selection bias)	Low	The investigators describe a random component in the sequence generation process
				Allocation concealment (selection bias)	Low	Participants and investigators enrolling participants could not foresee assignment due to concealed allocation.
				Blinding of participants and researchers (performance bias)	High	Blinding of participants and researchers not possible in active prevention programs. No blinding or incomplete blinding and the outcome is likely to be influenced by lack of blinding.
				Blinding of outcome assessment (detection bias)	High	Blinding of outcome assessment (self-reported injury) not possible. No blinding of outcome assessment and the outcome measurement is likely to be influenced by lack of blinding.
				Incomplete outcome data (attrition bias)	Low	Missing outcome data balanced in numbers across intervention groups
				Selective reporting (reporting bias)	Unclear	Insufficient information to permit judgement of 'Low risk' or 'High risk'. It is likely that the majority of studies will fall into this category.
				Other bias	High	Loss of clusters, that have to be omitted from the analysis may also lead to a risk of bias in cluster randomised controlled trials.

Web-appendix 2 Detailed characteristics of the included studies and risk of bias assessment (continued)

Söderman et al. 2000 (Sweden)	Cluster-RCT	Not reported	Not adjusted for clustering effects No intention-to-treat analysis	Random sequence generation (selection bias)	Unclear	Insufficient information about the sequence generation process to permit judgement of 'Low risk' or 'High risk'.
				Allocation concealment (selection bias)	Unclear	Insufficient information to permit judgement of 'Low risk' or 'High risk'. Concealment is not described or not described in sufficient detail to allow a definite judgement
				Blinding of participants and researchers (performance bias)	High	Blinding of participants and researchers not possible in active prevention programs. No blinding or incomplete blinding and the outcome is likely to be influenced by lack of blinding.
				Blinding of outcome assessment (detection bias)	High	Blinding of outcome assessment (self-reported injury) not possible. No blinding of outcome assessment, and the outcome measurement is likely to be influenced by lack of blinding.
				Incomplete outcome data (attrition bias)	Low	Missing outcome data balanced in numbers across intervention groups.
				Selective reporting (reporting bias)	Unclear	Insufficient information to permit judgement of 'Low risk' or 'High risk'.
				Other bias	High	Not taking possible clustering into account in analysis
Steffen et al. 2008 (Norway)	Cluster-RCT	Intervention 66423 Control 65725	Adjusted for clustering effects but ICC not reported Intention-to-treat analysis	Random sequence generation (selection bias)	Unclear	Insufficient information about the sequence generation process to permit judgement of 'Low risk' or 'High risk'.
				Allocation concealment (selection bias)	Unclear	Insufficient information to permit judgement of 'Low risk' or 'High risk'. Concealment is not described or not described in sufficient detail to allow a definite judgement
				Blinding of participants and researchers (performance bias)	High	Blinding of participants and researchers not possible in active prevention programs. No blinding or incomplete blinding and the outcome is likely to be influenced by lack of blinding.
				Blinding of outcome assessment (detection bias)	High	Blinding of outcome assessment (self-reported injury) not possible. No blinding of outcome assessment and the outcome measurement is likely to be influenced by lack of blinding.
				Incomplete outcome data (attrition bias)	Low	Missing data have been imputed using appropriate methods.
				Selective reporting (reporting bias)	Unclear	Insufficient information to permit judgement of 'Low risk' or 'High risk'.
				Other bias	High	Not taking possible clustering into account in analysis.

Web-appendix 2 Detailed characteristics of the included studies and risk of bias assessment (continued)

Wedderkopp et al. 1999 (Denmark)	Cluster-RCT	Not reported	Not adjusted for clustering effects No intention-to-treat analysis	Random sequence generation (selection bias)	Unclear	Insufficient information about the sequence generation process to permit judgement of 'Low risk' or 'High risk'.
				Allocation concealment (selection bias)	Unclear	Insufficient information to permit judgement of 'Low risk' or 'High risk'. Concealment is not described or not described in sufficient detail to allow a definite judgement
				Blinding of participants and researchers (performance bias)	High	Blinding of participants and researchers not possible in active prevention programs. No blinding or incomplete blinding and the outcome is likely to be influenced by lack of blinding.
				Blinding of outcome assessment (detection bias)	High	Blinding of outcome assessment (self-reported injury) not possible. No blinding of outcome assessment and the outcome measurement is likely to be influenced by lack of blinding.
				Incomplete outcome data (attrition bias)	Unclear	Insufficient reporting of attrition/exclusions to permit judgement of 'Low risk' or 'High risk'. .
				Selective reporting (reporting bias)	Unclear	Insufficient information to permit judgement of 'Low risk' or 'High risk'. It is likely that the majority of studies will fall into this category.
				Other bias	High	Not taking possible clustering into account in analysis.
* Data from group of players at increased risk of groin injuries (mean player exposure) [a] Data provided by authors (exposure)						