

Comparison: Spontaneous pushing compared with directed pushing

Source: Lemos A, Amorim MM, Dornelas de Andrade A, de Souza AI, Cabral Filho JE, Correia JB. Pushing/bearing down methods for the second stage of labour. Cochrane Database Syst Rev. 2017;(10):CD009124.

No. of studies	Study design	Quality assessment					No. of participants		Effect		Certainty (GRADE)	Importance
		Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Spontaneous pushing	Directed pushing	Relative (95% CI)	Absolute (95% CI)		
Duration of second stage (minutes) - nulliparous												
6	RCTs	very serious ^a	not serious	not serious	serious ^b	none	326	341	-	MD 10.26 higher (1.12 lower to 21.64 higher)	⊕○○○ VERY LOW	critical
Duration of pushing (minutes) - mixed parity												
2	RCTs	serious ^d	not serious	not serious	very serious ^{b,c}	none	85	84	-	MD 9.76 lower (19.54 lower to 0.02 higher)	⊕○○○ VERY LOW	critical
Spontaneous vaginal birth												
5	RCTs	not serious	not serious	not serious	not serious	none	318/340 (93.5%)	321/348 (92.2%)	RR 1.01 (0.97-1.05)	9 more per 1000 (from 28 fewer to 46 more)	⊕⊕⊕⊕ HIGH	critical
Instrumental vaginal birth												
2	RCTs	not serious	not serious	not serious	very serious ^{b,c}	none	10/201 (5.0%)	7/192 (3.6%)	RR 0.56 (0.06-5.10)	0 fewer per 1000 (from 0 fewer to 0 fewer)	⊕⊕○○ LOW	critical
Caesarean section												
3	RCTs	very serious ^a	not serious	not serious	very serious ^{b,c}	none	13/290 (4.5%)	12/293 (4.1%)	RR 0.79 (0.14-4.39)	9 fewer per 1000 (from 35 fewer to 139 more)	⊕○○○ VERY LOW	critical
Perineal laceration												
1	RCT	not serious	not serious	not serious	serious ^b	none	15/157 (9.6%)	18/163 (11.0%)	RR 0.87 (0.45-1.66)	14 fewer per 1000 (from 61 fewer to 73 more)	⊕⊕⊕○ MODERATE	critical
Episiotomy												
2	RCTs	very serious ^a	not serious	not serious	serious ^b	none	71/207 (34.3%)	71/213 (33.3%)	RR 1.05 (0.60-1.85)	17 more per 1000 (from 133 fewer to 283 more)	⊕○○○ VERY LOW	critical

No. of studies	Study design	Quality assessment					No. of participants		Effect		Certainty (GRADE)	Importance
		Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Spontaneous pushing	Directed pushing	Relative (95% CI)	Absolute (95% CI)		
Maternal fatigue after birth												
2	RCTs	very serious ^a	not serious	not serious	very serious ^{b,c}	none	70	72	-	SMD 1.14 lower (3.29 lower to 1.02 higher)	⊕○○○ VERY LOW	critical
Maternal satisfaction												
1	RCT	not serious	not serious	not serious	very serious ^{b,c}	none	14	17	-	MD 0.91 higher (1.3 lower to 3.12 higher)	⊕⊕○○ LOW	critical
Urinary stress incontinence												
1	RCT	not serious	not serious	not serious	very serious ^{b,c}	none	7/61 (11.5%)	11/67 (16.4%)	RR 0.70 (0.29-1.69)	49 fewer per 1000 (from 113 more to 117 fewer)	⊕⊕○○ LOW	critical
Five-minute Apgar score < 7												
1	RCT	not serious	not serious	not serious	very serious ^{b,c}	none	0/157 (0.0%)	1/163 (0.6%)	RR 0.35 (0.01-8.43)	4 fewer per 1000 (from 6 fewer to 46 more)	⊕⊕○○ LOW	critical
Low umbilical arterial cord blood pH < 7.2												
1	RCT	not serious	not serious	not serious	very serious ^{b,c}	none	5/157 (3.2%)	7/163 (4.3%)	RR 0.74 (0.24-2.29)	11 fewer per 1000 (from 33 fewer to 55 more)	⊕⊕○○ LOW	critical
Delivery room resuscitation												
2	RCTs	not serious	not serious	not serious	very serious ^{b,c}	none	10/172 (5.8%)	13/180 (7.2%)	RR 0.83 (0.40-1.75)	12 fewer per 1000 (from 43 fewer to 54 more)	⊕⊕○○ LOW	critical

CI: confidence interval; MD: mean difference; RCT: randomized controlled trial; RR: risk ratio; SMD: standardized mean difference.

^a Most of the pooled effect derived from studies with a moderate or high risk of bias but with a substantial proportion (i.e. > 50%) from studies with a high risk of bias.

^b Imprecise confidence interval.

^c Small sample size and/or few events.

^d Most of the pooled effect derived from studies with a moderate or high risk of bias but without a substantial proportion (i.e. with < 50%) from studies with a high risk of bias.