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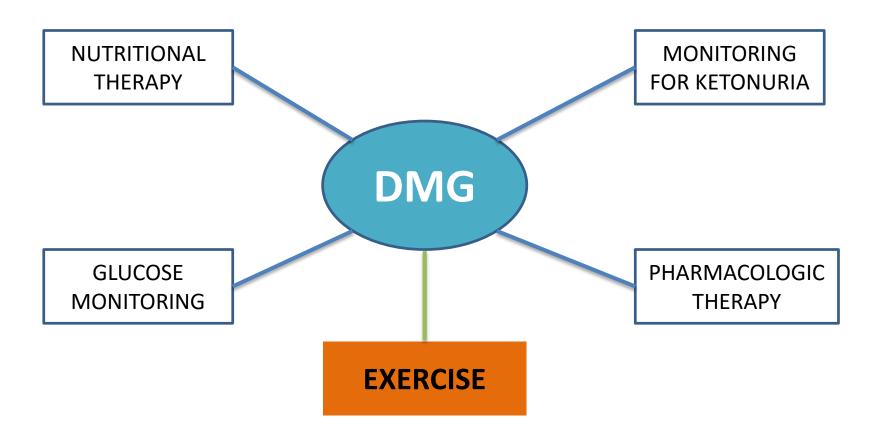
PHYSICAL ACTIVITY IN PREGNANCY: PREVENTION AND TREATMENT OF GESTATIONAL DIABETES MELLITUS

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GESTACIONAL DIABETES MELLITUS

GLYCEMIC CONTROL



(Hartling et al., 2013; Russo et al., 2015; Horvath et al.. 2010)

EFFECTS OF EXERCISE IN GDM

- To improve glycemic control primarily;
- Increased tissue sensitivity to insulin;



Fasting and postprandial blood glucose concentrations can be reduced

* In some women with GDM, the need for insulin may be obviated



Source: UOL. Blog do Dr. Alexandre Faisal.

EFFECTS OF EXERCISE IN GDM

Russo LM, Nobles C, Ertel KA, Chasan-Taber L, Whitcomb BW. Physical Activity Interventions in Pregnancy and Risk of Gestational Diabetes Mellitus: A Systematic Review and Meta-analysis. Obstet Gynecol. 2015 Mar;125(3):576–82.

Study	Physical activity		Control		Weight	Risk ratio [95%CI]					
1st author, year	Events	Total	Events	Total							
Barakat, 2012 (22)	0	40	3	43	2.1%	0.15 [0.01, 2.88]	-		_	_	
Barakat, 2013a (23)	41	210	61	218	37.6%	0.70 [0.49, 0.99]			-		
Barakat, 2013b (24)	5	106	5	90	3.4%	0.85 [0.25, 2.84]		77			
Callaway, 2010 (25)	5	22	3	19	2.0%	1.44 [0.40, 5.24]			-		
Ko, 2014 (26)	25	591	33	605	20.5%	0.78 [0.47, 1.29]			-		
Oostdam, 2012 (27)	7	49	11	51	6.8%	0.66 [0.28, 1.57]		9			
Price, 2011 (28)	3	31	4	31	2.5%	0.75 [0.18, 3.08]		_	-		
Renault, 2014 (29)	2	125	7	134	4.2%	0.31 [0.06, 1.45]			-		
Stafne, 2012 (30)	25	375	18	327	12.1%	1.21 [0.67, 2.18]					
Tomic, 2013 (31)	3	166	14	168	8.7%	0.22 [0.06, 0.74]			_		
Total	116	1715	159	1686	100%						
Fixed effect						0.72 [0.58, 0.91] (P=0.005)			•		
Random effect						0.74 [0.57, 0.97] (P=0.027)			¥		
Heterogeneity: χ ² =10.21	(df=9), P=0.	33; <i>I</i> ² =129	6					-			\neg
							0.01	0.1	1	10	100
							Favors physical activity		Favors control		

This meta-analysis indicate a significant 28% lower risk of GDM (95% CI 9–42%) among women randomized to exercise during pregnancy

EXERCISE - PREVENTION OF GDM

Neonatal birthweight was lower in the intervention (exercise group) than in the usual care group (p = 0.008) as was proportion of large-for-gestational-age (LGA) newborns (12.1% versus 19.7%, p = 0.042).

(Luoto et al., 2011)

Exercise training was more effective in reducing the risk of macrosomial infant (RR 0.36, 95% CI 0.13 to 0.99; two trials, I2=38%).

(Oostdam at al., 2011)



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