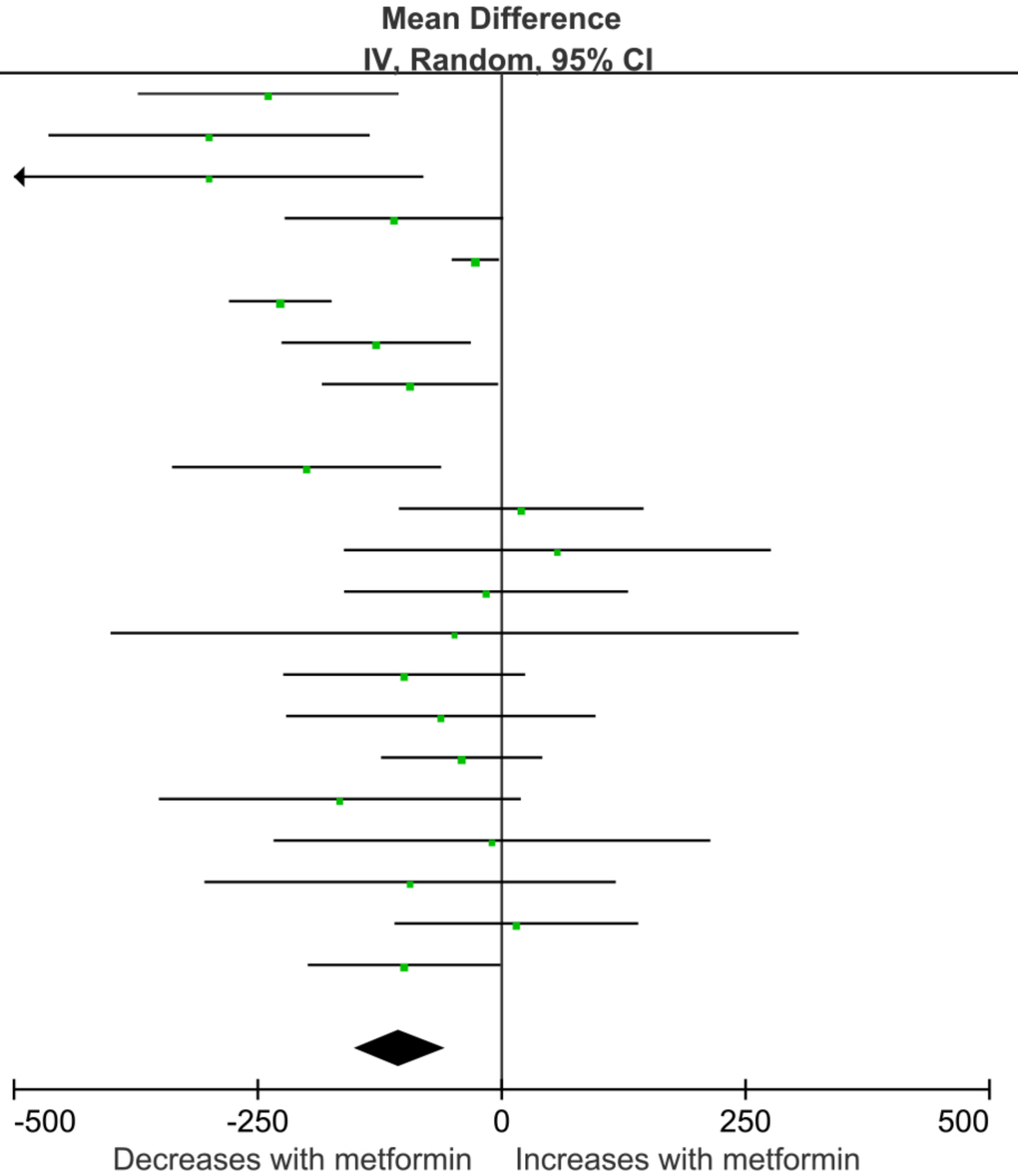
Study or Subgroup	Metformin Mean	Metformin SD	Metformin Total	Insulin Mean	Insulin SD	Insulin Total	Weight	Mean Difference IV, Random, 95% CI
Abdullah2021	3,410.2	480.08	94	3,649.6	468.87	100	4.9%	-239.40 [-373.06, -105.74]
Ainuddin2014	3,400	400	43	3,700	500	75	4.0%	-300.00 [-464.62, -135.38]
Arshad 2017	3,140	320	25	3,440	460	25	2.9%	-300.00 [-519.66, -80.34]
Ashoush2016	3,431.3	285.9	47	3,541.7	270.9	48	5.5%	-110.40 [-222.44, 1.64]
Barrett2013	3,401	137	236	3,428	133	242	8.0%	-27.00 [-51.21, -2.79]
Eid2018	3,037	204	113	3,264	202	116	7.4%	-227.00 [-279.59, -174.41]
Gamal2018	3,556.3	260.7	58	3,685	272.5	58	6.0%	-128.70 [-225.75, -31.65]
Ghomian2018	3,450	548	143	3,544	57	143	6.2%	-94.00 [-184.30, -3.70]
Hamadani2017	3,220	200	30	3,670	190	30	0.0%	-450.00 [-548.71, -351.29]
Hassan2012	3,400	400	75	3,600	460	75	4.7%	-200.00 [-337.96, -62.04]
Huhtala2020	3,610	490	109	3,590	450	107	5.1%	20.00 [-105.43, 145.43]
Ijas2010	3,615	417	32	3,558	593	50	2.9%	57.00 [-161.84, 275.84]
Mesdaghinia2013	3,512	484	100	3,528	563	100	4.5%	-16.00 [-161.52, 129.52]
Moore2007	3,451.8	727.5	32	3,500.2	700.5	31	1.4%	-48.40 [-401.02, 304.22]
Niromanesh2012	3,300	400	80	3,400	400	80	5.2%	-100.00 [-223.96, 23.96]
Picón-César2021	3,171.2	599.39	94	3,233.6	514.26	97	4.2%	-62.40 [-221.00, 96.20]
Roman2008	3,372	572	363	3,413	569	370	6.5%	-41.00 [-123.61, 41.61]
Ruholamin2014	3,176	438	50	3,342	506	50	3.5%	-166.00 [-351.50, 19.50]
Somani2016	2,840	320	32	2,850	570	33	2.8%	-10.00 [-233.86, 213.86]
Spaulonci2013	3,143.7	446.6	47	3,237.6	586.8	47	3.0%	-93.90 [-304.72, 116.92]
Tertti2013	3,604	488	109	3,589	448	107	5.1%	15.00 [-109.89, 139.89]
Wasim2019	3,000	400	137	3,100	440	141	6.0%	-100.00 [-198.80, -1.20]
Total (95% CI)			**2019**			**2095**	**100.0%**	**-103.93 [-150.36, -57.50]**

Heterogeneity: Tau² = 6874.75; Chi² = 77.67, df = 20 (P < 0.00001); I² = 74%

Test for overall effect: Z = 4.39 (P < 0.0001)



Neonatal birth weight