

CORRECTION

Correction: The Relationship between Serum Ferritin Levels and Insulin Resistance in Pre- and Postmenopausal Korean Women: KNHANES 2007-2010

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The ferritin values in the second column of Table 1 are written incorrectly. The correct values should appear as 1 (n = 727) $F \leq 9.57$. Please see the correct [Table 1](#) here.



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Table 1. Baseline characteristics of premenopausal women according to serum ferritin groups.

	1 (n = 727)	2 (n = 726)	3 (n = 727)	4 (n = 725)	5 (n = 727)	6 (n = 725)	p-value†	p-value‡	
	F≤9.57	9.57<F≤17.32	17.32<F≤25.86	25.86<F≤36.62	36.62<F≤52.93	F>52.93			
Ferritin (ng/mL)	6.2±2.05	13.42±2.26	21.37±2.47	31.14±3.18	44.02±4.6	78.02±29.19			
Age	37.19±8.19	35.75±8.23	35.64±8.4	35.72±8.27	36.09±8.16	35.91±8.72	0.0033*	0.0011*	
Ht (cm)	158.61±5.83	159.24±5.78	159.63±5.34	159.43±5.37	159.1±5.35	159.17±5.34	0.0130*	0.0018*	
BMI (kg/m ²)	22.43±3.38	22.28±3.47	22.58±3.55	22.37±3.8	22.49±3.51	22.9±3.84	0.0205*	0.8424	
WC (cm)	75.41±8.6	74.9±8.73	76±9.15	75.14±9.01	75.65±8.88	77.57±10.2	<.0001*	0.8470	
WC/Ht	0.476±0.057	0.471±0.056	0.477±0.059	0.472±0.058	0.476±0.058	0.488±0.065	<.0001*	0.4737	
Fasting glucose (mg/dl)	91.59±17.1	89.74±11.63	89.88±13.92	89.81±10.43	91.7±17.75	93.88±25.62	<.0001*	0.0633	
Insulin (μIU/mL)	9.94±4.04	9.57±4.14	9.7±5.18	9.37±4.18	9.77±8.11	9.74±3.98	0.3901	0.0611	
HOMA-IR (mg/dl)	2.26±1.04	2.15±1.11	2.18±1.36	2.1±1.09	2.25±2.26	2.28±1.18	0.0897	0.0581	
WBC (Thous/μl)	5.72±1.14	5.89±1.25	5.81±1.26	5.92±1.25	5.99±1.25	6.11±1.31	<.0001*	0.0128*	
Hb (g/dl)	12.03±0.996	12.99±0.796	13.1±0.814	13.18±0.768	13.24±0.802	13.32±0.866	<.0001*	<.0001*	
Cr (mg/dl)	0.741±0.105	0.743±0.115	0.734±0.109	0.734±0.111	0.728±0.104	0.73±0.109	0.0657	0.0996	
Total cholesterol (mg/dl)	181.18±31.35	177.27±30.18	174.63±28.68	176.55±30.76	176.46±31.71	179.76±34.3	0.0007*	0.0014*	
AST (IU/L)	17.34±4.54	17.46±4.89	17.68±5.27	17.79±5.12	18.24±6.15	19.75±7.63	<.0001*	0.0943	
ALT (IU/L)	13.94±6.43	14.3±7.11	15.03±8.84	15.18±7.82	16.44±9.7	19.03±12.84	<.0001*	0.0030*	
BMI	<25	576(79.23)	586(80.72)	564(77.58)	571(78.76)	576(79.23)	546(75.31)	0.1974	0.0733
	≥25	151(20.77)	140(19.28)	163(22.42)	154(21.24)	151(20.77)	179(24.69)		
WC	<85	624(85.83)	633(87.19)	617(84.87)	625(86.21)	624(85.83)	572(78.9)	0.0001*	0.0008*
	≥85	103(14.17)	93(12.81)	110(15.13)	100(13.79)	103(14.17)	153(21.1)		
WC/Ht	<0.51	535(73.59)	563(77.55)	543(74.69)	549(75.72)	537(73.87)	489(67.45)	0.0005*	0.0029*
	≥0.51	192(26.41)	163(22.45)	184(25.31)	176(24.28)	190(26.13)	236(32.55)		

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Tables 2–8 are misaligned in the published article. Please see the correctly aligned tables here.

Table 2. Baseline characteristics of postmenopausal women according to serum ferritin groups.

	1 (n = 380)	2 (n = 379)	3 (n = 379)	4 (n = 379)	5 (n = 379)	6 (n = 379)	p-value†	p-value‡	
	F≤29.92	29.92<F≤43.9	43.9<F≤56	56<F≤72.73	72.73<F≤98.21	F>98.21			
Ferritin (ng/mL)	19.7±7.03	37.61±3.91	49.86±3.5	64.4±4.92	84.25±7.12	144.24±55.04			
Age	62.35±9.51	62.32±8.94	61.64±9.2	62.61±9.44	63.6±9.44	65.13±9.65	< .0001*	0.9667	
Ht (cm)	152.1±6.46	153.13±6.38	153.27±5.92	153.18±6.3	152.49±5.84	152.49±6.15	0.0432*	0.0171*	
BMI (kg/m ²)	23±3.42	23.31±3.43	23.2±2.98	23.38±3.41	23.51±3.4	23.93±3.64	0.0053*	0.1847	
WC (cm)	78.92±9.01	80.56±8.93	80.14±8.5	81.37±8.69	81.75±8.95	83.62±9.21	< .0001*	0.0007*	
WC/Ht	0.52±0.062	0.527±0.059	0.523±0.057	0.532±0.058	0.537±0.06	0.549±0.065	< .0001*	0.0167*	
Fasting glucose (mg/dl)	95.39±17.13	95.99±19.4	95.8±17.62	98.35±24.92	100.1±22.89	103.8±29.21	< .0001*	0.0902	
Insulin (μIU/mL)	9.22±9.4	9.36±4.59	9.05±3.89	9.44±4.02	9.84±5.57	10.99±6.72	< .0001*	0.8064	
HOMA-IR (mg/dl)	2.25±3.25	2.25±1.32	2.19±1.3	2.32±1.27	2.49±1.83	2.93±2.75	< .0001*	0.7501	
WBC (Thous/μl)	5.69±1.2	5.68±1.21	5.73±1.23	5.74±1.16	5.9±1.29	6.02±1.39	0.0004*	0.4570	
Hb (g/dl)	12.79±0.979	13±0.82	13.18±0.838	13.13±0.912	13.26±0.936	13.36±0.917	< .0001*	< .0001*	
Cr (mg/dl)	0.75±0.132	0.741±0.121	0.733±0.121	0.738±0.123	0.739±0.127	0.749±0.133	0.3934	0.1405	
Total cholesterol (mg/dl)	201.76±34.43	202.61±33.57	204.06±34.86	205.73±37.02	205.18±33.44	207.29±36.3	0.2617	0.0967	
AST (IU/L)	21.92±6.52	21.68±6.12	21.76±6.49	22.31±6.41	22.89±6.76	24.81±9.81	< .0001*	0.4437	
ALT (IU/L)	17.44±7.91	17.74±7.81	18.29±8.57	19.85±9.55	20.16±10.36	22.51±12.17	< .0001*	0.0004*	
BMI	<25	280(73.68)	261(68.87)	279(73.61)	253(66.75)	258(68.07)	238(62.8)	0.0083*	0.0014*
	≥25	100(26.32)	118(31.13)	100(26.39)	126(33.25)	121(31.93)	141(37.2)		
WC	<85	285(75)	258(68.07)	274(72.3)	252(66.49)	248(65.44)	221(58.31)	< .0001*	< .0001*
	≥85	95(25)	121(31.93)	105(27.7)	127(33.51)	131(34.56)	158(41.69)		
WC/Ht	<0.51	166(43.68)	157(41.42)	162(42.74)	142(37.47)	122(32.19)	105(27.7)	< .0001*	< .0001*
	≥0.51	214(56.32)	222(58.58)	217(57.26)	237(62.53)	257(67.81)	274(72.3)		

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Table 3. Adjusted odds ratios (95% confidence interval) for BMI (≥25) by serum ferritin groups.

	Premenopause OR(95% CI); p-value	Postmenopause OR(95% CI); p-value	p-value
Model 1			0.2331
Ferritin level 1	1	1	
Ferritin level 2	0.947(0.731–1.226); 0.6773	1.266(0.923–1.735); 0.1429	
Ferritin level 3	1.150(0.894–1.478); 0.2770	1.001(0.725–1.383); 0.9950	
Ferritin level 4	1.070(0.830–1.379); 0.6005	1.396(1.021–1.908); 0.0366	
Ferritin level 5	1.030(0.799–1.329); 0.8182	1.319(0.963–1.807); 0.0844	
Ferritin level 6	1.295(1.011–1.659); 0.0407	1.676(1.229–2.285); 0.0011	
Model 2			0.3929
Ferritin level 1	1	1	
Ferritin level 2	0.920(0.690–1.225); 0.5673	1.177(0.844–1.642); 0.3368	
Ferritin level 3	1.146(0.860–1.528); 0.3513	0.961(0.683–1.351); 0.8174	
Ferritin level 4	1.077(0.806–1.440); 0.6146	1.238(0.885–1.733); 0.2124	
Ferritin level 5	0.996(0.742–1.337); 0.9799	1.214(0.869–1.698); 0.2560	
Ferritin level 6	1.182(0.884–1.580); 0.2592	1.470(1.055–2.050); 0.0229	

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Table 4. Adjusted odds ratios (95% confidence interval) for WC (≥ 85 cm) by serum ferritin groups.

	Premenopause	Postmenopause	p-value
	OR(95% CI); p-value	OR(95% CI); p-value	
Model 1			0.1713
Ferritin level 1	1	1	
Ferritin level 2	0.950(0.700–1.287); 0.7385	1.408(1.025–1.934); 0.0345	
Ferritin level 3	1.160(0.864–1.556); 0.3229	1.158(0.838–1.601); 0.3743	
Ferritin level 4	1.036(0.768–1.398); 0.8148	1.509(1.101–2.069); 0.0106	
Ferritin level 5	1.053(0.782–1.418); 0.7338	1.566(1.144–2.146); 0.0052	
Ferritin level 6	1.728(1.309–2.281); 0.0001	2.09(1.532–2.85); < .0001	
Model 2			0.1713
Ferritin level 1	1	1	
Ferritin level 2	0.840(0.599–1.179); 0.3133	1.326(0.950–1.851); 0.0975	
Ferritin level 3	1.102(0.788–1.540); 0.5709	1.079(0.767–1.519); 0.6613	
Ferritin level 4	0.888(0.631–1.252); 0.4989	1.285(0.915–1.804); 0.1481	
Ferritin level 5	0.876(0.620–1.237); 0.4525	1.414(1.011–1.976); 0.0427	
Ferritin level 6	1.221(0.876–1.703); 0.2386	1.776(1.275–2.475); 0.0007	

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Table 5. Adjusted odds ratios (95% confidence interval) for WC/Ht (≥ 0.51) by serum ferritin groups.

	Premenopause	Postmenopause	p-value
	OR(95% CI); p-value	OR(95% CI); p-value	
Model 1			0.3212
Ferritin level 1	1	1	
Ferritin level 2	0.883(0.690–1.131); 0.3261	1.099(0.821–1.470); 0.5261	
Ferritin level 3	1.049(0.823–1.337); 0.7001	1.064(0.796–1.423); 0.6744	
Ferritin level 4	0.985(0.772–1.257); 0.9037	1.291(0.962–1.732); 0.0884	
Ferritin level 5	1.069(0.840–1.360); 0.5900	1.584(1.175–2.137); 0.0026	
Ferritin level 6	1.496(1.182–1.892); 0.0008	1.875(1.380–2.548); < .0001	
Model 2			0.3554
Ferritin level 1	1	1	
Ferritin level 2	0.788(0.598–1.039); 0.0917	1.012(0.742–1.380); 0.9400	
Ferritin level 3	0.964(0.730–1.273); 0.7973	0.988(0.724–1.349); 0.9408	
Ferritin level 4	0.860(0.649–1.138); 0.2906	1.186(0.864–1.629); 0.2919	
Ferritin level 5	0.905(0.683–1.199); 0.4879	1.404(1.018–1.935); 0.0383	
Ferritin level 6	1.102(0.833–1.456); 0.4971	1.498(1.077–2.083); 0.0163	

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Table 6. Estimated regression coefficient for insulin by serum ferritin groups.

	Premenopause	Postmenopause	p-value
	Estimate(SE); p-value	Estimate(SE); p-value	
Model 1			0.0005
Ferritin level 1	0	0	
Ferritin level 2	-0.407(0.271); 0.1322	0.144(0.437); 0.7411	
Ferritin level 3	-0.285(0.271); 0.2920	-0.167(0.437); 0.702	
Ferritin level 4	-0.609(0.271); 0.0244	0.216(0.437); 0.6202	
Ferritin level 5	-0.201(0.270); 0.4571	0.615(0.437); 0.1597	
Ferritin level 6	-0.231(0.271); 0.3933	1.754(0.438); < .0001	
Model 2			0.0008
Ferritin level 1	0	0	
Ferritin level 2	-0.778(0.291); 0.0075	0.003(0.439); 0.9941	
Ferritin level 3	-0.604(0.297); 0.0421	-0.249(0.443); 0.5743	
Ferritin level 4	-0.968(0.299); 0.0012	0.068(0.446); 0.8781	
Ferritin level 5	-0.566(0.301); 0.0605	0.196(0.446); 0.6600	
Ferritin level 6	-0.832(0.304); 0.0062	1.287(0.449); 0.0042	

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Table 7. Estimated regression coefficient for fasting glucose by serum ferritin groups.

	Premenopause	Postmenopause	p-value
	Estimate(SE); p-value	Estimate(SE); p-value	
Model 1			0.0277
Ferritin level 1	0	0	
Ferritin level 2	-1.363(0.873); 0.1183	0.605(1.615); 0.7080	
Ferritin level 3	-1.188(0.873); 0.1733	0.515(1.615); 0.7496	
Ferritin level 4	-1.286(0.873); 0.1407	2.916(1.615); 0.0711	
Ferritin level 5	0.480(0.872); 0.5823	4.521(1.616); 0.0052	
Ferritin level 6	2.722(0.873); 0.0018	7.994(1.620); < .0001	
Model 2			0.0511
Ferritin level 1	0	0	
Ferritin level 2	-2.063(0.809); 0.0108	-0.279(1.325); 0.8333	
Ferritin level 3	-1.903(0.827); 0.0215	-0.375(1.335); 0.7790	
Ferritin level 4	-2.309(0.832); 0.0055	1.712(1.345); 0.2033	
Ferritin level 5	-1.155(0.838); 0.1685	2.179(1.344); 0.1052	
Ferritin level 6	0.428(0.845); 0.6124	4.360(1.355); 0.0013	

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Table 8. Estimated regression coefficient for HOMA-IR by serum ferritin groups.

	Premenopause	Postmenopause	p-value
	Estimate(SE); p-value	Estimate(SE); p-value	
Model 1			0.0002
Ferritin level 1	0	0	
Ferritin level 2	-0.109(0.074); 0.1406	0.001(0.153); 0.9956	
Ferritin level 3	-0.073(0.074); 0.3227	-0.056(0.153); 0.7126	
Ferritin level 4	-0.153(0.074); 0.0375	0.070(0.153); 0.6463	
Ferritin level 5	-0.006(0.074); 0.9371	0.228(0.153); 0.1363	
Ferritin level 6	0.027(0.074); 0.7117	0.655(0.153); < .0001	
Model 2			0.0015
Ferritin level 1	0	0	
Ferritin level 2	-0.225(0.079); 0.0043	-0.059(0.145); 0.6853	
Ferritin level 3	-0.177(0.080); 0.0274	-0.105(0.146); 0.4742	
Ferritin level 4	-0.279(0.081); 0.0006	0.001(0.148); 0.9945	
Ferritin level 5	-0.139(0.081); 0.0879	0.050(0.147); 0.7344	
Ferritin level 6	-0.185(0.082); 0.0241	0.422(0.149); 0.0046	

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Reference

1. Kim MK, Chon SJ, Jung YS, Kim BO, Noe EB, Yun BH, et al. (2016) The Relationship between Serum Ferritin Levels and Insulin Resistance in Pre- and Postmenopausal Korean Women: KNHANES 2007–2010. PLoS ONE 11(6): e0157934. doi: [10.1371/journal.pone.0157934](https://doi.org/10.1371/journal.pone.0157934) PMID: [27337113](https://pubmed.ncbi.nlm.nih.gov/27337113/)