

**Table 4****Epistatic QTLs with overall significant effects on WTC and the physical activity traits**

CH1	cM	CH2	cM	<i>F</i>	Prob. <i>F</i>	WTC				Activity				
						<i>aa</i>	<i>ad</i>	<i>da</i>	<i>dd</i>	<i>aa</i>	<i>ad</i>	<i>da</i>	<i>dd</i>	
											Distance			
5	35	19	55	5.35	<b>0.0000017</b>	0.05	-0.71**	-0.27	-0.02	-0.17	0.29	-0.34	-0.81**	
16	33	17	65	3.51	0.0005699	0.15	-0.29	0.58**	0.22	0.40**	-0.03	-0.35	0.11	
											Duration			
3	68	6	91	3.40	0.0007965	-0.37*	-0.03	-0.25	-0.81*	-0.25	0.80**	-0.16	-0.31	
5	35	19	55	5.31	<b>0.0000020</b>	0.05	-0.71**	-0.27	-0.02	-0.20	0.20	-0.40*	0.77	
7	42	11	50	3.35	0.0009265	-0.22	0.19	-0.54**	-0.31	-0.19	0.41*	-0.36	-0.40	
9	48	10	78	3.42	0.0007526	0.01	-0.52**	0.43**	-0.00	0.28*	0.34	-0.24	0.17	
											Speed			
2	75	7	38	3.70	0.0003174	0.15	-0.19	-0.43*	0.53*	-0.23*	0.18	0.30	-0.77**	
3	62	7	68	3.75	0.0002727	0.22	0.06	-0.72**	0.19	-0.45**	-0.01	0.39	-0.32	
4	105	13	67	3.79	<b>0.0002409</b>	0.64**	0.20	0.17	-0.32	0.19	-1.08**	-0.07	-0.20	
5	11	14	64	3.42	0.0007540	-0.11	0.07	0.75**	0.04	-0.15	-0.20	-0.58**	-0.43	
9	86	11	88	3.42	0.0007489	-0.20	-0.50*	0.13	0.38	-0.06	-0.59**	-0.08	-0.50	

Shown are locations in cM from the centromere for QTLs on each pair of chromosomes (CH1 and CH2) whose *F* tests for overall epistasis for weight change (WTC) with each of the physical activity traits resulted in a probability less than 0.001 (probabilities in bold reach the 0.05 suggestive Bonferroni threshold level). For each pairwise QTL combination, standardized individual epistatic components also are given. \* =  $P < 0.05$ ; \*\* =  $P < 0.01$ .