

SUPPLEMENT

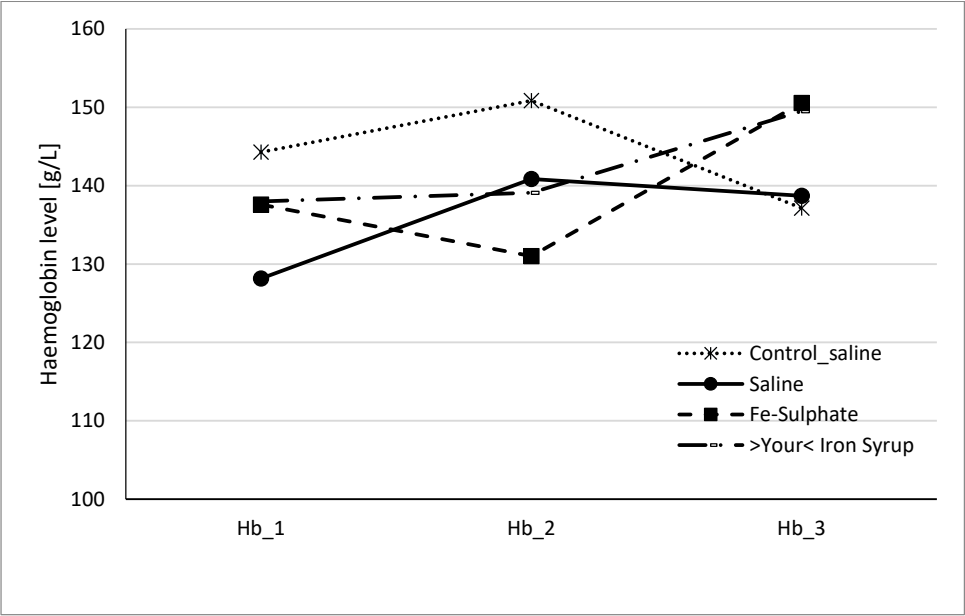


Figure S1. Haemoglobin concentration of female mice at the beginning of the gavage (Hb_1), after one week (Hb_2) of the gavage treatment and at the end of two-week gavage treatment (Hb_3).

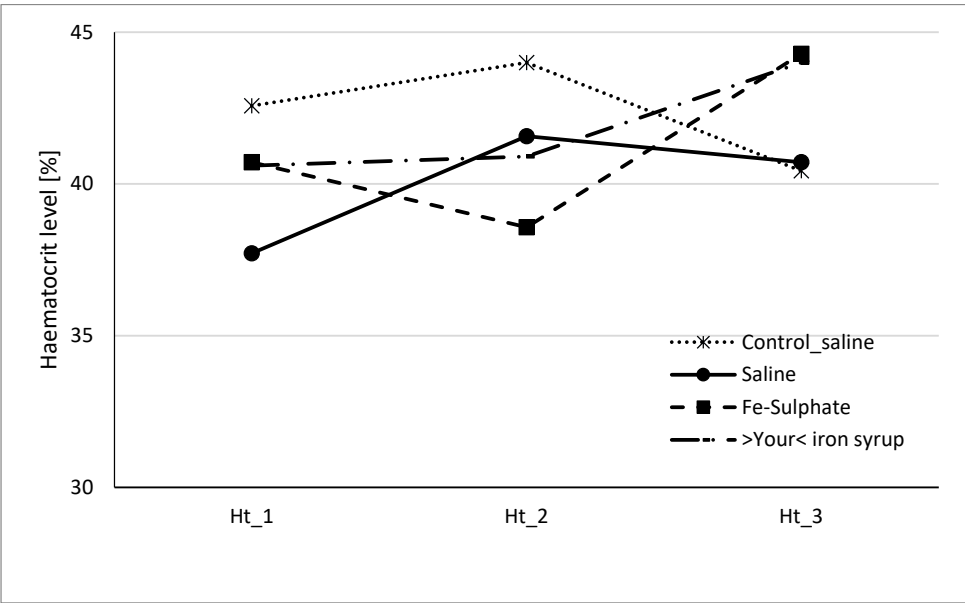


Figure S2. Haematocrit level of female mice at the beginning of the gavage (Ht_1), after one week (Ht_2) of the gavage treatment and at the end of two-week gavage treatment (Ht_3).

Table S1. Body mass and consumed diet (females) (average \pm SEM). Differences between groups were not significant ($p>0.05$).

	Initial body mass (g)	Final body mass (g)	Consumed diet (g/day)
Control_saline	23.73 \pm 0.52	21.73 \pm 0.42	3.37 \pm 0.17
Iron deficient diet groups			
Saline	22.87 \pm 0.52	21.82 \pm 0.42	3.11 \pm 0.17
Fe-sulphate	22.28 \pm 0.52	21.41 \pm 0.42	3.13 \pm 0.17
>Your< Iron Syrup	22.13 \pm 0.43	21.38 \pm 0.35	3.22 \pm 0.15

Table S2. Body mass and consumed diet (males) (average \pm SEM). Differences between groups were not significant ($p>0.05$).

	Initial body mass (g)	Final body mass (g)	Consumed diet (g/day)
Control_saline	27.77 \pm 0.64	27.95 \pm 0.68	3.62 \pm 0.16
Iron deficient diet groups			
Saline	26.39 \pm 0.64	25.91 \pm 0.68	3.52 \pm 0.16
Fe-sulphate	27.24 \pm 0.60	27.02 \pm 0.64	3.49 \pm 0.16
>Your< Iron Syrup	30.39 \pm 0.53	28.85 \pm 0.57	3.65 \pm 0.14

Table S3. Liver and spleen mass in males and females (average \pm SEM). Differences between groups were not significant ($p>0.05$).

	Liver mass (g)		Spleen mass (mg)	
	Male	Female	Male	Female
Control_saline	1.15 \pm 0.05	0.90 \pm 0.03	132.5 \pm 1.2	127.7 \pm 0.7
Iron deficient diet groups				
Saline	1.10 \pm 0.05	0.80 \pm 0.03	118.7 \pm 1.2	102.4 \pm 0.7
Fe-sulphate	1.08 \pm 0.05	0.82 \pm 0.03	104.3 \pm 1.1	115.3 \pm 0.7
>Your< Iron Syrup	1.24 \pm 0.04	0.83 \pm 0.02	111.4 \pm 1.0	103.0 \pm 0.6

Table S4. Haemoglobin concentration (g/L) (average \pm SEM) before and after two weeks of gavage feeding. Differences between groups were not significant ($p>0.05$).

	Male		Female	
	before	after	before	after
Control_saline	144.3 \pm 6.7	137.4 \pm 7.8	144.3 \pm 4.5	137.1 \pm 4.5
Iron deficient diet groups				
Saline	115.4 \pm 6.7	108.4 \pm 7.8	128.1 \pm 4.5	138.7 \pm 4.5
Fe-sulphate	127.6 \pm 6.3	138.6 \pm 7.3	137.6 \pm 4.5	150.6 \pm 4.5
>Your< Iron Syrup	121.6 \pm 5.6	139.3 \pm 6.5	138.0 \pm 3.8	149.5 \pm 3.7

Table S5. Haematocrit level (%) (average \pm SEM) before and after two weeks of gavage feeding. Differences between groups were not significant ($p>0.05$).

	Male		Female	
	before	after	before	after
Control_saline	42.0 \pm 2.0	40.6 \pm 2.3	42.6 \pm 1.4	40.4 \pm 1.3
Iron deficient diet groups				
Saline	32.2 \pm 2.0	31.8 \pm 2.3	37.7 \pm 1.4	40.7 \pm 1.3
Fe-sulphate	35.3 \pm 1.8	39.3 \pm 2.2	40.7 \pm 1.4	44.3 \pm 1.3
>Your< Iron Syrup	35.6 \pm 1.6	40.9 \pm 1.9	40.6 \pm 1.1	44.0 \pm 1.1

Table S6. qPCR expression analyses of four inflammatory genes (*Crp*, *Saa1*, *Il6* and *Soc3*) in the liver (average \pm SEM).

	<i>Crp</i> (dC _T)		<i>Saa1</i> (dC _T)	
	Male	Female	Male	Female
Control_saline	2.59 \pm 0.43	1.26 \pm 0.51	-2.32 \pm 1.07 ^b	4.13 \pm 0.65
Iron deficient diet groups				
Saline	2.86 \pm 0.43	1.65 \pm 0.67	3.04 \pm 1.07 ^a	5.05 \pm 0.65
Fe-sulphate	2.76 \pm 0.56	1.64 \pm 0.48	-1.36 \pm 1.38 ^{ab}	4.66 \pm 0.75
>Your< Iron Syrup	2.98 \pm 0.43	1.62 \pm 0.51	2.23 \pm 1.07 ^{ab}	3.56 \pm 0.46
	<i>Il6</i> (dC _T)		<i>Soc3</i> (dC _T)	
	Male	Female	Male	Female
Control_saline	10.06 \pm 0.75 ^{ab}	10.01 \pm 0.94	6.85 \pm 0.50	7.02 \pm 0.42
Iron deficient diet groups				
Saline	11.13 \pm 0.75 ^{ab}	11.89 \pm 0.94	6.93 \pm 0.50	7.74 \pm 0.56
Fe-sulphate	7.94 \pm 0.96 ^b	11.41 \pm 0.94	7.60 \pm 0.65	7.05 \pm 0.56
>Your< Iron Syrup	12.68 \pm 0.84 ^a	10.23 \pm 0.67	6.33 \pm 0.50	6.18 \pm 0.40

^{ab} Columns without the same superscript differ significantly between the groups inside the sex ($p\leq 0.05$).

p- value for the sex effect: *Crp*: $p=0.0030$; *Saa1*: $p<0.0001$