

Table A1. Study characteristics

Study	Year	Participants, N	Subject Characteristics	Sport
Dellavale and Haas ¹⁰	2014	40	-Female -≥18 years old	College rowers
Friedmann et al ²⁰	2001	40	Female (n = 23) and male (n = 17) -13-25 years old	-Elite middle/long-distance running -Elite triathlon -Elite cycling -Elite rowing -Elite swimming -Elite game sports
Hinton and Sinclair ²⁷	2007	20	-Female (n = 17) and male (n = 3) -18-41 years old	Recreationally trained
Yoshida et al ⁴⁷	1990	12	-Female -18-20 years old	Distance runners
Rowland et al ³⁹	1988	14	-Female	High school cross-country runners
LaManca and Haymes ²⁹	1993	20	-Female -18-35 years old	Various athletic teams/clubs
Blee et al ⁴	1999	15	-Female -16-22 years old	Elite netball
Burden et al ⁵	2014	15	- Female (n = 9), male (n = 6) - Female: 21 ± 2 years, male: 20 ± 1 years	Endurance runners
Fogelholm et al ¹⁸	1992	33	-Female -17-31 years old	-Long distance running/orienteering -Football -Finnish baseball -Basketball -Handball
Newhouse et al ³⁴	1989	40	-Female -18-40	Endurance runners

Peeling et al ³⁶	2007	16	-Female -15-35 years old	-Running -Cycling -Triathlon
Klingshirn et al ²⁸	1992	18	-Female -22-39 years old	Runners

Table A2. Effects on performance^a

Study	Participants, N	Treatment Effect on Performance
Dellavale and Haas ¹⁰	40	-Improved energy expenditure, and gross energetic efficiency
Friedmann et al ²⁰	40	-Improved VO ₂ max and increased O ₂ consumption
Hinton and Sinclair ²⁷	20	Prevented decline in ventilator threshold -Increased gross energetic efficiency
Yoshida et al ⁴⁷	12	-Improved running velocity at lactate threshold, running velocity at onset of blood lactate accumulation, and race pace in 3000-m running performance
Rowland et al ³⁹	14	Improved treadmill endurance times
LaManca and Haymes ²⁹	20	Improved VO ₂ max
Blee et al ⁴	15	No improvement in 10-second power, 6-second sprints, vertical jump or 20-m multistage shuttle run/predicted VO ₂ max
Burden et al ⁵	15	No improvement in VO ₂ max, VO ₂ max economy, speed, time to exhaustion, or rate perceived exertion
Fogelholm et al ¹⁸	33	No improvement in VO ₂ max, heart rate or O ₂ consumption
Newhouse et al ³⁴	40	No improvement in wingate cycle ergometer test, anaerobic speed test, ventilator threshold, VO ₂ max, or maximal treadmill velocity
Peeling et al ³⁶	16	No improvement in 10-min steady-state submaximal economy test, VO ₂ max, timed test to exhaustion at VO ₂ max workload, and heart rate
Klingshirn et al ²⁸	18	No improvement in VO ₂ max, time to exhaustion, O ₂ consumption, respiratory exchange ratio, heart rate, or respiratory performance evaluation.

^aShaded cells indicate studies with no improvement in performance.

Table A3. Ferritin cutoffs^a

Study	Ferritin cutoff
Dellavale and Haas ¹⁰	<20 ug/L
Friedmann et al ²⁰	<20 ug/L
Hinton and Sinclair ²⁷	<16 ug/L
Yoshida et al ⁴⁷	≤20 ng/mL
Rowland et al ³⁹	<20 ug/L
LaManca and Haymes ²⁹	<20 ng/mL
Blee et al ⁴	<40 ug/L
Burden et al ⁵	Females: <30 mcg/L Males: <40 mcg/L
Fogelholm et al ¹⁸	≤25 ug/L
Newhouse et al ³⁴	20 ng/ml
Peeling et al ³⁶	<35 ug/L
Klingshirn et al ²⁸	<20 ng/mL

^aShaded cells indicate studies with no improvement in performance.

Table A4. Type of intervention^a

Study	Intervention
Dellavale and Haas ¹⁰	Ferrous sulfate, 100 mg po daily
Friedmann et al ²⁰	Ferrous glycine sulfate, 100 mg po bid
Hinton and Sinclair ²⁷	Ferrous sulfate, 100 mg po daily
Yoshida et al ⁴⁷	Ferrous citrate sodium succinate, 200 mg po tid
Rowland et al ³⁹	Ferrous sulfate, 975 mg po daily
LaManca and Haymes ²⁹	Ferrous sulfate, 159 mg po bid
Blee et al ⁴	Ferrum H, 2 mg IM x 5 doses
Burden et al ⁵	Ferric carboxymaltose, 500 mg IV
Fogelholm et al ¹⁸	Ferrous sulfate, 100 mg po daily

Newhouse et al ³⁴	Ferrous sulfate, 320 mg po daily
Peeling et al ³⁶	Ferrum H, 2 mg IM x 5 doses
Klingshirn et al ²⁸	Ferrous sulfate, 160 mg po daily

^aShaded cells indicate studies with no improvement in performance.

Table A5. Duration of treatment

Study	Duration of treatment
Dellavale and Haas ¹⁰	6 weeks
Friedmann et al ²⁰	12 weeks
Hinton and Sinclair ²⁷	6 weeks
Yoshida et al ⁴⁷	8 weeks
Rowland et al ³⁹	4 weeks
LaManca and Haymes ²⁹	8 weeks
Blee et al ⁴	10 days
Burden et al ⁵	4 weeks
Fogelholm et al ¹⁸	8 weeks
Newhouse et al ³⁴	8 weeks
Peeling et al ³⁶	28 days
Klingshirn et al ²⁸	8 weeks

^aShaded cells indicate studies with no improvement in performance.