Table 2. Characteristics of included RCT's - Supplementen

Study	Participants (number, age, other important characteristics)	Comparison	Outcome measures	Comments	Risk of bias*
Individual studies (not included in the Cochrane review of de Ligny, 2022).					
Dadgar, 2023	N total: 140 of which 70 meet PICO - Intervention: 35 - Control: 35 Men aged 25-43 years with idiopathic infertility ((including oligo-asthenozoospermia, asthenozoospermia, astheno-teratozoospermia, oligoastheno-teratozoospermia) without other diseases.	Intervention: 15mg zinc once daily for 3 months. Control: placebo twice daily for 3 months. Other groups received either pentoxifylline or pentoxifylline plus zinc.	Sperm concentration, progressive motility, percentage normal morphology, percentage DNA fragmentation, oxidative stress (malondialdehyde, total antioxidant capacity, reactive oxygen species).	Setting: hospital in Iran.	High
Hajb, 2023	N total: 50 - Intervention: 30 - Control: 20 Men with infertility: total count <15 million per milliliter, morphology <4% and progressive motility <40%.	Intervention: 350mg date pollen extract + 250mg black seed pollen twice daily for 3 months. Control: two tables of placebo twice daily for 3 months.	Sperm volume, count, progressive motility, motility, percentage normal morphology.	Setting: hospital in Iran.	High
Hodeeb, 2023	N total: 80 - Intervention: 40 - Control: 40	Intervention: 300mg alpha-lipoic acid twice daily for 90 days. Control: placebo twice daily for 90 days.	Sperm volume, count, progressive motility, motility, percentage normal morphology, percentage vitality, total antioxidant capacity, malondialdehyde.	Setting: university hospital in Egypt.	Low

	Men with infertility (asthenozoospermia) and normal hormonal profile.			Title states 'case-controlled study'.	
Lahimer, 2023	N total: 263 - Intervention: 131 - Control: 132 Men ≥20 years with idiopathic infertility (oligoastheno-teratozoospermia) and candidate for IUI, IVF and/or ICSI.	Intervention: Fertilis* twice daily for 3 months. Control: placebo twice daily for 3 months. ** Fertilis antioxidant contains coenzyme Q10, folic acid, L-arginine, L-carnitine, L-glutathione, selenium, vitamin E and zinc.*	Sperm volume, count, motility, vitality, DNA fragmentation index, decondensation index, fertilization rate, pregnancy rate, live birth rate.	Setting: university hospital in Tunesia.	Moderate
Patki, 2023	N total: 300 - Intervention: 150 - Control: 150 Men aged 25-45 years with oligoastheno-teratozoospermia.	Intervention: antioxidant blend* once daily for 3 months. Control: placebo once daily for 3 months. ** antioxidant blend contains coenzyme Q10, copper selenium, folic acid ginseng extract, iron, L-arginine, L-carnitine, L-glutathione, lycopene, manganese, selenium, vitamin A, B1, B6, B12, C, D, E and zinc.*	Sperm count, volume, motility, morphology, DNA fragmentation index.	Setting: 10 hospitals in India.	Moderate
Pilehvari, 2023	N total: 60 - Intervention: 30 - Control: 30 Men <40 years with primary infertility (abnormality of at least one semen parameter).	Intervention: 1.5g carob seed powder once daily for 12 weeks. Control: placebo once daily for 12 weeks.	Sperm volume, count, progressive motility, morphology, viscosity.	Setting: hospital in Iran.	Low

Habibi, 2022	N total: 70 - Intervention: 35 - Control: 35 Men with or without impaired semen analysis with high sperm DNA damage.	Intervention: 600mg alpha-lipoic acid once daily for 80 days. Control: placebo once daily for 80 days.	Sperm concentration, motility, percentage abnormal morphology, DNA fragmentation, reactive oxygen species, clinical pregnancy rate.	Setting: hospital in Iran.	Low
Helli, 2022	N total: 50 - Intervention: 25 - Control: 25 Men aged 20-45 years with idiopathic oligoastheno-teratozoospermia and normal hormonal profile.	Intervention: 500mg probiotics* daily for 10 weeks. Control: placebo daily for 10 weeks. ** probiotic contains Lactobacillus casei, Lactobacillus rhamnosus,* *Lactobacillus bulgaricus, Lactobacillus* *acidophilus, Bifidobacterium breve, Bifidobacterium longum and* *Streptococcus thermophiles.*	Sperm volume, count, concentration, motility, percentage normal morphology, vitality, total antioxidant capacity, malondialdehyde.	Setting: university hospital in Iran.	Moderate
Abbasi, 2021	N total: 56 - Intervention: 28 - Control: 28 Men with oligozoospermia, teratozoospermia, and asthenozoospermia and no other diseases.	Intervention: 500mg FamiLact* once daily for 80 days. Control: placebo once daily for 80 days. ** FamiLact contains Lactobacillus rhamnosus, Lactobacillus casei, Lactobacillus bulgaricus, Lactobacillus acidophilus, Bifidobacterium breve, Bifidobacterium longum, Streptococcus thermophilus and fructooligosaccharides.*	Sperm volume, concentration, motility, percentage normal morphology, DNA fragmentation index, protamine deficiency, lipid peroxidation.	Setting: hospital in Iran.	Low

D'argent, 2021	N total: 162 - Intervention: 83 - Control: 79 Men 18-60 years with sperm concentration <15 million/mL, motility <50%, vitality <60% and normal morphology <4% and no other diseases.	Intervention: 15mg folic acid once daily for 3 months. Control: placebo once daily for 3 months.	Pregnancy rate, clinical pregnancy, sperm volume, motility, concentration, vitality, percentage normal morphology, DNA fragmentation index.	Setting: six hospitals in France.	Moderate
Haidari, 2021	N total: 48 - Intervention: 24 - Control: 24 Men with idiopathic asthenozoospermia and no other diseases.	Intervention: 600mg lipoic acid once daily for 12 weeks. Control: placebo once daily for 12 weeks.	Reactive oxygen species, glutathione S-transferase activity.	Setting: hospital in Iran.	Low
Melnikovova, 2021	N total: 50 - Intervention: 25 - Control: 25 Men aged 28-52 years with impaired semen quality and no other diseases.	Intervention: 2800mg maca (Lepidium meyenii Walpers) once daily for 16 weeks. Control: placebo once daily for 16 weeks.	Sperm count and concentration.	Setting: hospital in Czech Republic.	Moderate
Sabeti, 2021	N total: 60 - Intervention: 30 - Control: 30 Men with asthenoteratozoospermia and no other diseases.	Intervention: 400IU vitamin E + 200µg selenium once daily for 3 months. Control: placebo once daily for 3 months.	Sperm volume, vitality, concentration, motility, percentage normal morphology, DNA fragmentation, markers for oxidative stress.	Setting: hospital in Iran.	Moderate