Supplementary material 1 (Table) Search strategy used for the PubMed database.

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| #1 | randomized controlled trial [pt] |
| #2 | controlled clinical trial [pt] |
| #3 | randomized [tiab] |
| #4 | randomly [tiab] |
| #5 | trial [tiab] |
| #6 | placebo [tiab] |
| #7 | groups [tiab] |
| #8 | randomized controlled trials as topic [mh] |
| #9 | randomi\*ed [tiab] |
| #10 | animals [mh] NOT (humans [mh] and animals [mh]) |
| #11 | #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 NOT#10 |
| #12 | pediatric obesity [mh] |
| #13 | child\* [tiab] |
| #14 | adolescent\* [tiab] |
| #15 | adolescent [mh] |
| #16 | obesity [tiab] |
| #17 | overweight [tiab] |
| #18 | obes\* [tiab] |
| #19 | teens [tiab] |
| #20 | teen [tiab] |
| #21 | teenagers [tiab] |
| #22 | youth\* [tiab] |
| #23 | #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 |
| #24 | exercise [mh] |
| #25 | exercises [tiab] |
| #26 | exercise\*, physical [tiab] |
| #27 | physical exercise\* [tiab] |
| #28 | aerobic [tiab] |
| #29 | exercise\*, aerobic [tiab] |
| #30 | aerobic axercises\* [tiab] |
| #31 | resistance [tiab] |
| #32 | resistance training [mh]  |
| #33 | training, resistance [tiab] |
| #34 | strength\* [tiab] |
| #35 | strengthening program\* [tiab] |
| #36 | #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 |
| #37 | cytokines [mh] |
| #38 | inflammatory\* [tiab] |
| #39 | pro-inflammatory\* [tiab] |
| #40 | chemokine\* [tiab] |
| #41 | Interleukins [mh] |
| #42 | # 37 OR #38 OR #39 OR #40 OR #41 |
| #43 | #11 AND #23 AND #36 AND #42 |



Supplementary material 2. Absolutes changes in CRP in individual subgroup e.g. Resistance vs Control (A) and Aerobic plus Resistance (combined) vs Control (B) in obesity or overweight children or adolescents.