Supplemental Digital Content 14. Supplemental Table 3. Summary of the Sample, Study, and Intervention Characteristics of the Qualifying Meta-Analyses of Controlled Trials that Examined the Blood Pressure Response to Exercise and Performed Moderator Analyses among Adults with Hypertension [Adapted from 13]

Author, Year	Coverage Dates	Total Included Studies (k)	Total Participants in Study Sample (N)	Exercise Type (Mode)	Medication was a Significant Moderator	Methodological Study Quality ($AMSTAR_{EX}$)	Blood Pressure Change Exercise vs Control by BP Group (mm Hg) [SBP/ DBP / MAP [Hypertension (H); Prehypertension (PH); Normal (N)] & Relevant Moderator Analyses
Igarashi 2018 (54)	RCTs to December 2016	26	1,994	Bicycle Ergometer, Walking, Combined	No	Moderate	**H** -6.0 (-8.6, -3-3) / -3.4 (-5.3, -1.6) **Not H** -3.6 (-6.1, -1.2) / -2.9 (-4.7, -1.1) Subgroup analyses revealed that those who met the AHA/ACSM exercise guidelines of moderate-intensity aerobic exercise >30 min/d, 5 d/wk, or total 150 min/wk, the SBP reductions were greater than the RCTs that did not; supervised exercise sessions had larger BP reductions than those not supervised. No medication (n=12 study groups) -6.1 (-9.6, -2.6) / -4.5 (-7.2, -1.7). *Of note, medication use was not a significant moderator suggesting no added benefit or* $EX+MEDS_{combined} = EX_{alone}$. Meta-regression revealed the change in DBP related to age and time x frequency exercise interaction.
Cornelissen 2013 (53)	RCTs to February 2012	93	5,223	Aerobic Training (k=59)	NR	Moderate	**H** -8.3 (95% CI -10.7 to -6.0) / -5.2 (95% CI -6.9 to -3.4); **PH** -4.3 (95% CI -7.7 to -0.9) / -1.7 (95% CI -2.7 to 0.7); **N** -1.7(95% CI -2.2 to 0.7) / -1.1 (95% CI -2.2 to -0.1) Subgroup analyses revealed greater BP reductions occurred among men 2x the magnitude vs women; program duration $\leq$24 wk vs >24 wk; total time $\leq$210 min/wk vs >210 min/wk; $\geq$30 min/ session vs <30 min/session; moderate to vigorous vs low intensity; and greater weight loss vs less weight loss. *Of note, medication use was not reported as a moderator suggesting no added benefit or* $EX+MEDS_{combined} = EX_{alone}$
MacDonald 2016 (51)	RCTs and CTs 1987 to 2013	64	2,344	Dynamic Resistance Training	Yes	High	**H** -5.7 (95% CI -9.0 to -2.7) / -5.2 (95% CI -8.4, -1.9) **PH** -3.0 (95% CI -5.1 to -1.0) / -3.3 (95% CI -5.3 to -1.4) **N** 0.0 (95% CI -2.5 to 2.5) / -0.9 (95% CI -2.1 to 2.2) Meta-regression analyses revealed greater BP reductions occurred among nonwhite than white samples with hypertension; among samples with hypertension than prehypertension than normal BP; *exercising and not taking medication [-4.3 (-6.2,-2.2)/-3.5 (-5.0,-2.1)] vs exercising and taking medication [(-0.4 (*95% CI *-3.8, 3.0)/-1.2 (*95% CI *-3.4,1.0)] for SBP/DBP* ; $\geq$8 exercises vs < 8 exercises; $\geq$ 3 d/wk vs < 3 d/wk; lower methodological study quality vs moderate vs high. *Of note, the BP benefits of dynamic resistance training were ~4/2 mmHg greater for untreated vs treated with medication suggesting that dynamic resistance*

							training combined with medication attenuated the BP lowering effects of dynamic resistance training alone or EX+MEDS$_{combined}$ < EX$_{alone}$.
Cornelissen 2011 (47)	RCT 1987 to June 2010	28	1,012	Dynamic Resistance Training	NR	Moderate	**H** -1.7 (95% CI -5.5 to 2.0) / -3.2 (95% CI -4.7 to -1.7) / **PH** -4.7 (95% CI -7.8 to –1.6) / -3.2 (95% CI -5.0 to -1.4) / **N** -1.2 (95% CI -3.5 to 1.0) / -3.2 (95% CI -5.47 to -0.9) Subgroups analyses were preformed, however, none examined were significant. *Of note, medication use was not reported as a potential moderator suggesting no added benefit or EX+MEDS$_{combined}$ = EX$_{alone}$.*
Casonatto 2016 (49)	RCT 1999 to March 2015	30	646	Acute Dynamic Resistance Training	NR	Moderate	**H** -9.0 (95% CI -11.3 to -6.8) / -5.4 (95% CI -7.1 to -3.8) **N** -3.2 (95% CI -4.0 to -2.3) / -2.7 (95% CI -3.4 to -2.1) Subgroup analyses revealed greater BP reductions occurred among samples with hypertension than normal BP; using larger than smaller muscle groups; and recovering in supine vs seated position. *Of note, medication use was not reported as a significant moderator suggesting no added benefit or EX+MEDS$_{combined}$ = EX$_{alone}$.*
Corso 2016 (52)	RCTs and CTs to January 2015	68	4,110	Concurrent Training	NR	High	**H** -5.3 (95% CI -6.4 to -4.2) / -5.6 (95% CI -6.9 to -3.8) **PH** -2.9 (95% CI -3.9 to -1.9) / -3.6 (95% CI -5.0 to -0.2) **N** 0.9 (95% CI 0.2 to 1.6) / -1.5 (95% CI -2.5 to -0.4) Meta-regression analyses revealed the greatest BP reductions occurred among samples with hypertension than prehypertension than normal BP; and higher than median than lower study methodological quality. *Of note, medication use was not reported as a significant moderator suggesting no added benefit or EX+MEDS$_{combined}$ = EX$_{alone}$.*
Wu 2020 (59)	RCTs and CTs to July 31, 2018	31	3,223	Tai Chi Training	NR	High	**H** -14.4 (95% CI -17.7 to -11.3) / -6.4 (95% CI -7.5 to -5.3) **PH** -11.3 (95% CI -14.1 to -8.3) / -4.8 (95% CI -5.8 to -3.7) **N** -8.3 (95% CI -13.2 to -3.3) / -2.8 (95% CI -4.4 to -1.2) Meta-regression analyses revealed the greatest BP reductions occurred among samples with hypertension than prehypertension than normal BP; and trials published in Chinese than English. *Of note, medication use was not reported as a significant moderator suggesting no added benefit or EX+MEDS$_{combined}$ = EX$_{alone}$.*
Zhong 2020 (58)	RCT to January 1, 2020	28	2,937	Tai Chi Training	Yes	High	**Tai Chi vs Control (k=9)** **H** -14.8 (95% CI -19.6 to -10.0) / -7.0 (95% CI -9.0 to -5.0) **Tai Chi vs Medications (k=15)** -9.0 (95% CI -14.0 to -4.1) / -5.6 (95% CI -8.8 to -2.4) Tai Chi vs Other Exercise (k=5) -7.9 (95% CI -14.2 to -1.7) / -3.9 (95% CI -6.5 to -1.2) Tai Chi resulted in greater BP reductions compared to control, other types of exercise, and antihypertensive medications. Subgroup analyses in the Tai Chi vs Medication trails revealed great BP reductions in adults

							< 50 yr than ≥50yr and interventions last 12-24 wk than <12 and >24 wk. *Of note, greater BP reductions occurred with Tai Chi alone than antihypertensive medication alone or* $MEDS_{alone} < EX_{alone}$.
Jin 2019 (50)	RCT to March 2018	16	1,164	Traditional Chinese Exercise [Daduanjin, Qigong, Tai Chi, Wuqinxi, Yijinjing, Yoga]	Yes	Moderate	Overall BP response not reported for the sample which had hypertension Subgroup analyses revealed that traditional Chinese exercise combined with medication lowered SBP -13.9 (-16.3, -10.1) and DBP -4.9 (-4.9, -4.7) more than medication alone. Furthermore, two studies showed that traditional Chinese exercise lowered DBP -2.8 (-1.1, -4.4) more than medication alone but not SBP -1.7 (-8.8, 5.5). *Traditional Chinese* $EX+MEDS_{combined} > MEDS_{alone.}$
Wu 2019 (57)	RCTs and CTs to June 4, 2018	49	3,517	Yoga Training	NR	High	**H** -8.7 (95% CI -11.8 to -5.5) / -4.8 (95% CI -6.5 to -3.1) **PH** -5.2 (95% CI -7.4 to -3.1) / -2.8 (95% CI -4.0 to -1.6) **N** -1.6 (95% CI -5.6 to 0.4) / -1.5 (95% CI -3.1 to -0.22) Meta-regression analyses revealed the greatest BP reductions occurred among samples with hypertension than prehypertension than normal BP; lower than middle than highest tier of methodological study quality; and yoga that included breathing techniques for SBP and meditation/mental relaxation and ≥4 than 1-3 sessions per week for DBP. *Of note, medication use was not reported as a significant moderator suggesting no added benefit or* $EX+MEDS_{combined} = EX_{alone}$.
Xiong 2015 (48)	RCT 1978 to November 2014	8	572	Baduanjin Training	Yes	Moderate	**H** -13.0 (95% CI -21.2 to -4.8) / -6.1 (95% CI -11.2 to -1.1) Subgroup analyses revealed greater BP reductions occurred with Baduanjin + antihypertensive medications vs antihypertensive medications alone [-7.5 (95% CI -11.4 to -3.6)/ -3.6 (95% CI -5.2 to -1.8)]. *Of note, greater BP reductions occurred with Baduanjin + antihypertensive medications than antihypertensive medication alone or* $EX+MEDS_{combined} > MEDS_{alone}$.
Xiong 2015 (56)	RCT 1959 to April 2014	20	2,349	Qigong Training	Yes	Moderate	**H** -17.4 (95% CI -21.1 to -13.7) / -10.6 (95% CI -14.0 to -6.3) Subgroup analyses revealed greater BP reductions occurred with Qigong vs antihypertensive medications -7.9 (95% CI -16.8 to 1.0)/ -6.1 (95% CI -9.6 to -2.6); and Qigong + antihypertensive meds vs antihypertensive meds -12.0 (95% CI -15.6 to -8.5)/-5.3 (95% CI -8.1 to -2.4). *Of note, greater BP reductions occurred with Qigong + antihypertensive medications than antihypertensive medication alone or* $EX+MEDS_{combined} > MEDS_{alone}$*; and Qigong alone than medication alone or* $MEDS_{alone} < EX_{alone}$.

Wang 2013 (55)	RCT 1959 to April 2013	18	1,371	Tai Chi Training	Yes	Moderate	**H** -12.4 (95% CI -12.6 to -12.2) / -6.0 (95% CI -6.2 to -5.9) Subgroup analyses revealed greater BP reductions occurred with Tai Chi vs antihypertensive medications -14.3 (95% CI -14.31 to -14.29)/-6.0 (95% CI -6.01 to -5.99); and Tai Chi + antihypertensive medications vs meds -9.3 (95% CI -10.9 to -7.8)/-7.2 (95% CI -7.7 to -6.6). *Of note, greater BP reductions occurred with Tai Chi alone vs antihypertensive medications alone or* $MEDS_{alone} < EX_{alone}$*; and with Tai Chi + antihypertensive medications than antihypertensive alone or* $EX+MEDS_{combined} > MEDS_{alone}$.
Summary (*K*=13)	RCTs (*K*=9) and RCTs and CTs (*K*=4) 1946 to 2020	8 to 93	28,468	2 Aerobic, 3 Dynamic Resistance, 1 Concurrent, 7 CAM	1 No; 6 Yes; 6 NR	Moderate (n=7) to High (n=6)	**Subgroup Analyses Summary of 13 Meta-Analyses** *K*=7 Medication was not a significant moderator suggesting exercise and medication combined provided no added benefit to exercise alone or $EX+MEDS_{combined} = EX_{alone}$. *K=1* Exercise and medication resulted in smaller BP reductions then exercise alone or $EX+MEDS_{combined} < EX_{alone}$. *K=4* CAM combined with medication resulted in great BP reductions than medication alone or $EX+MEDS_{combined} > MEDS_{alone}$ *K=3* CAM alone resulted in greater BP reductions than medication alone or $MEDS_{alone} < EX_{alone}$. K=1 CAM alone resulted in similar BP reductions to medication alone or $MEDS_{alone} = EX_{alone}$.

$AMSTAR_{EX}$= Assessment of multiple systematic reviews adapted for exercise; BP=blood pressure; CAM= Complementary and Alternative Exercise Types; CI= Confidence interval; CT=Controlled trial; Diastolic blood pressure=DBP; NR=Not reported; RCT= Randomized controlled trial; Systolic blood pressure=SBP.