

## Supplementary appendix:

**Table S1. ICD-codes used to identify dementia in the Swedish Twin Registry.**

<b>ICD-7</b>	<b>ICD-8</b>	<b>ICD-9*</b>	<b>ICD-10</b>
<b>(used before 1969)</b>	<b>(used 1969-1986)</b>	<b>(used 1987-1996)</b>	<b>(used 1997 and onwards)</b>
<b>304</b> Senile psychosis	<b>290</b> Senile and presenile dementia	<b>290</b> Senile and presenile organic psychotic condition	<b>F00</b> Dementia in Alzheimer's disease
<b>305</b> Presenile psychosis	<b>293.0</b> Cerebral arteriosclerosis	<b>294B/ 294.1</b> Dementia in conditions classified elsewhere	<b>F01</b> Vascular dementia
<b>306</b> Psychosis with cerebral arteriosclerosis	<b>293.1</b> Other cerebrovascular disturbances	<b>331A/ 331.0</b> Alzheimer's disease	<b>F02</b> Dementia in other diseases classified elsewhere
		<b>331B/ 331.1</b> Pick's disease	<b>F03</b> Unspecified dementia
		<b>331C/ 331.2</b> Senile degeneration of brain	<b>F051</b> Delirium superimposed on dementia
		<b>331X/ 331.9</b> Cerebral degeneration, unspecified	<b>G30</b> Alzheimer's disease
			<b>G311</b> Senile degeneration of brain, not elsewhere classified
			<b>G318A</b> Other specified degenerative diseases of nervous system: Lewy body dementia

ICD-codes used to identify dementia diagnosis. By using the unique personal identification number assigned to all Swedish residents, diagnoses were obtained from the National Patient Register (NPR) and the Cause of Death Register (CDR) (1).

\* In the Swedish adaptation of ICD-9, the 4<sup>th</sup> digit was replaced with a letter. While the Swedish National Patient Register used the Swedish adaptation of ICD-9, the ICD versions was used in Cause of Death Registries (2), therefore, both versions of the codes are reported here.

**Table S2. ATC-codes for identification of dementia medication in the Swedish Twin Registry.**

<b>N06DA</b> Anticholinesterases
N06DA02 Donepezil
N06DA03 Rivastigmine
N06DA04 Galantamine
(N06DA01 Tacrine and N06DA05 Ipidacrine not prescribed in Sweden)
<b>N06DX</b> Other anti-dementia drugs
N06DX01 Memantine
(N06DX02 Ginkgo folium not prescribed in Sweden)

The ATC-codes for dementia medication. Prescribed dementia medication from the Prescribed Drug Register was used as a proxy to the diagnoses (3).

**Table S3. Diagnostic criteria for the metabolic health variables.**

Metabolic health variables	Diagnostic criteria	
	The HRS	The STR
<b>Hypertension</b>	SBP $\geq$ 130 mmHg or	SBP $\geq$ 130 mmHg or
	DBP $\geq$ 85 mmHg	DBP $\geq$ 85 mmHg
	Self-reported hypertension	Self-reported hypertension
<b>Hyperglycemia</b>	HbA1c $>$ 5.7% or	HbA1c $>$ 5.7% or
	Self-reported diabetes	Self-reported diabetes or
		Fasting BG $\geq$ 6.1 mmol/L or
		Non-fasting BG $\geq$ 7.0 mmol/L
<b>Dyslipidemia (TG)</b>	No data	Fasting TG $\geq$ 1.7 mmol/ or
		Non-fasting TG $\geq$ 2.1 mmol/L
		Use of cholesterol lowering medication
<b>Dyslipidemia (HDL-C)</b>	HDL-C $<$ 40 mg/dL in males or	HDL-C $<$ 1.03 mmol/L in males or
	HDL-C $<$ 50 mg/dL in females	HDL-C $<$ 1.30 in females
		Use of cholesterol lowering medication.
<b>Metabolically unhealthy status</b>	$\geq$ 2 of 3 metabolic health variables	$\geq$ 2 of 4 metabolic health variables

The diagnostic criteria for hypertension, hyperglycemia, and dyslipidemia used in the HRS and the STR.

Abbreviations. BG – Blood glucose. DBP – Diastolic blood pressure. HbA1c – Hemoglobin A1c. HDL-C – High-Density Lipoprotein Cholesterol. HRS – Health and Retirement Study. SBP – Systolic blood pressure. STR – Swedish Twin Registry. TG – Triglycerides.

**Table S4. Risk of dementia in relation to obesity and metabolic health phenotypes measured in midlife.**

Metabolic health and weight phenotype	The HRS				The STR			
	N	Events	HR	95% CI	N	Events	HR	95% CI
<b>Total analytical sample</b>	4,233	362			5,856	327		
MHNO	1,480	86	Ref	Ref	3,404	192	Ref	Ref
MHO	839	57	0.96	0.68 – 1.35	298	11	0.70	0.38 – 1.30
MUNO	726	90	1.33	0.98 – 1.79	1,622	94	1.03	0.80 – 1.32
MUO	1,188	129	1.08	0.81 – 1.43	532	30	1.19	0.81 – 1.75
<b>Male analytical sample</b>	1,715	161			2,590	146		
MHNO	602	47	Ref	Ref	1,314	73	Ref	Ref
MHO	353	24	0.85	0.52 – 1.40	105	2	0.32	0.08 – 1.31
MUNO	346	42	1.12	0.73 – 1.71	905	54	1.08	0.76 – 1.55
MUO	414	48	0.93	0.61 – 1.41	266	17	1.52	0.88 – 2.60
<b>Female analytical sample</b>	2,518	201			3,266	181		
MHNO	878	39	Ref	Ref	2,090	119	Ref	Ref
MHO	486	33	1.09	0.68 – 1.75	193	9	0.97	0.49 – 1.91
MUNO	380	48	<b>1.62</b>	<b>1.05 – 2.49</b>	717	40	0.97	0.67 – 1.39
MUO	774	81	1.27	0.86 – 1.89	266	13	0.93	0.53 – 1.66

Hazard rate ratios (HR) and 95% confidence intervals (CI) from Cox proportional hazard regression, showing risk of dementia in relation to MUO, MUNO, and MHO compared to the reference category MHNO. Results are presented for measures taken in midlife ( $\leq 65$  years), in the total analytical sample, the male analytical sample, and the female analytical sample. All models were adjusted for age, sex, smoking status, and education level. Models of the HRS were further adjusted for ethnicity, and models of the STR for sub-study. Bold numbers indicate statistical significance at the  $\alpha=0.05$  level.

Abbreviations: CI – Confidence interval, HR – Hazard ratio, N – Number of individuals, MHNO – Metabolically healthy no obesity, MHO – Metabolically healthy obesity, MUNO – Metabolically unhealthy no obesity, MUO – Metabolically unhealthy obesity.

**Table S5. Risk of dementia in relation to obesity and metabolic health phenotypes measured in late-life.**

Metabolic health and weight phenotype	The HRS				The STR			
	N	Events	HR	95% CI	N	Events	HR	95% CI
<b>Total analytical sample</b>	7,249	1,927			7,212	1,669		
MHNO	2,262	555	Ref	Ref	3,483	806	Ref	Ref
MHO	917	194	0.94	0.81 – 1.11	318	59	0.80	0.61 – 1.04
MUNO	2,068	651	1.07	0.95 – 1.19	2,745	680	<b>1.13</b>	<b>1.02 – 1.25</b>
MUO	2,002	527	1.12	0.99 – 1.26	666	124	0.88	0.73 – 1.07
<b>Male analytical sample</b>	3,150	788			3,349	710		
MHNO	973	233	Ref	Ref	1,511	314	Ref	Ref
MHO	423	81	0.88	0.68 – 1.12	106	17	0.84	0.52 – 1.37
MUNO	897	255	1.01	0.84 – 1.21	1,459	333	<b>1.22</b>	<b>1.04 – 1.42</b>
MUO	857	219	1.18	0.98 – 1.42	273	46	1.06	0.77 – 1.45
<b>Female analytical sample</b>	4,099	1,139			3,863	959		
MHNO	1,289	322	Ref	Ref	1,972	492	Ref	Ref
MHO	494	113	1.03	0.84 – 1.27	212	42	0.78	0.57 – 1.07
MUNO	1,171	396	1.13	0.98 – 1.31	1,286	347	1.07	0.93 – 1.23
MUO	1,145	308	1.09	0.93 – 1.28	393	78	0.81	0.63 – 1.03

Hazard rate ratios (HR) and 95% confidence intervals (CI) from Cox proportional hazard regression, showing risk of dementia in relation to MUO, MUNO, and MHO compared to the reference category MHNO. Results are presented for measures taken in late-life (>65 years), in the total analytical sample, the male analytical sample, and the female analytical sample. All models were adjusted for age, sex, smoking status, and education level. Models of the HRS were further adjusted for ethnicity, and models of the STR for sub-study. Bold numbers indicate statistical significance at the  $\alpha=0.05$  level.

Abbreviations: CI – Confidence interval, HR – Hazard ratio, N – Number of individuals, MHNO – Metabolically healthy no obesity, MHO – Metabolically healthy obesity, MUNO – Metabolically unhealthy no obesity, MUO – Metabolically unhealthy obesity.

**Table S6. Risk of dementia in relation to obesity and metabolic health phenotypes measured at ages <63 years.**

Metabolic health and weight phenotype	The HRS				The STR			
	N	Events	HR	95% CI	N	Events	HR	95% CI
<b>Total analytical sample</b>	3,356	248			4,545	222		
MHNO	1,208	59	Ref	Ref	2,699	127	Ref	Ref
MHO	696	42	1.12	0.75 – 1.68	230	9	0.89	0.45 – 1.76
MUNO	543	57	1.20	0.83 – 1.74	1,202	64	1.27	0.93 – 1.74
MUO	909	90	1.31	0.93 – 1.84	414	22	1.29	0.82 – 2.04
<b>Male analytical sample</b>	1,372	114			2,002	92		
MHNO	483	31	Ref	Ref	1,028	38	Ref	Ref
MHO	300	19	1.08	0.61 – 1.94	76	2	0.68	0.16 – 2.84
MUNO	268	29	1.00	0.59 – 1.94	690	40	<b>1.80</b>	<b>1.14 – 2.84</b>
MUO	321	35	1.16	0.71 – 1.91	208	12	<b>2.04</b>	<b>1.04 – 3.99</b>
<b>Female analytical sample</b>	1,984	134			2,543	130		
MHNO	725	28	Ref	Ref	1,671	89	Ref	Ref
MHO	396	23	1.23	0.70 – 2.16	154	7	1.01	0.47 – 2.19
MUNO	275	28	1.48	0.86 – 2.55	512	24	0.95	0.60 – 1.50
MUO	588	55	1.54	0.96 – 2.48	206	10	0.95	0.49 – 1.82

Hazard rate ratios (HR) and 95% confidence intervals (CI) from Cox proportional hazard regression, showing risk of dementia in relation to MUO, MUNO, and MHO compared to the reference category MHNO. Results are presented for measures taken at ages <63 years, in the total analytical sample, the male analytical sample, and the female analytical sample. All models were adjusted for age, sex, smoking status, and education level. Models of the HRS were further adjusted for ethnicity, and models of the STR for sub-study. Bold numbers indicate statistical significance at the  $\alpha=0.05$  level.

Abbreviations: CI – Confidence interval, HR – Hazard ratio, N – Number of individuals, MHNO – Metabolically healthy no obesity, MHO – Metabolically healthy obesity, MUNO – Metabolically unhealthy no obesity, MUO – Metabolically unhealthy obesity.

**Table S7. Risk of dementia in relation to obesity and metabolic health phenotypes measured at ages >67 years.**

Metabolic health and weight phenotype	The HRS				The STR			
	N	Events	HR	95% CI	N	Events	HR	95% CI
<b>Total analytical sample</b>	6,467	1,827			5,257	1,405		
MHNO	2,034	532	Ref	Ref	2,499	686	Ref	Ref
MHO	796	187	0.94	0.80 – 1.11	242	50	0.76	0.57 – 1.01
MUNO	1,890	624	1.04	0.93 – 1.17	2,044	570	1.09	0.97 – 1.22
MUO	1,747	484	1.08	0.96 – 1.23	472	99	0.83	0.67 – 1.03
<b>Male analytical sample</b>	2,793	746			2,460	597		
MHNO	874	225	Ref	Ref	1,105	272	Ref	Ref
MHO	373	80	0.85	0.66 – 1.10	78	14	0.77	0.45 – 1.32
MUNO	803	240	0.97	0.80 – 1.16	1,086	277	1.15	0.97 – 1.37
MUO	743	201	1.13	0.93 – 1.37	191	34	0.93	0.65 – 1.33
<b>Female analytical sample</b>	3,674	1,081			2,797	808		
MHNO	1,160	307	Ref	Ref	1,394	414	Ref	Ref
MHO	423	107	1.05	0.84 – 1.30	164	36	0.75	0.53 – 1.06
MUNO	1,087	384	1.10	0.95 – 1.28	958	293	1.05	0.90 – 1.22
MUO	1,004	283	1.06	0.90 – 1.26	281	65	0.79	0.61 – 1.03

Hazard rate ratios (HR) and 95% confidence intervals (CI) from Cox proportional hazard regression, showing risk of dementia in relation to MUO, MUNO, and MHO compared to the reference category MHNO. Results are presented for measures taken at ages >67 years, in the total analytical sample, the male analytical sample, and the female analytical sample. All models were adjusted for age, sex, smoking status, and education level. Models of the HRS were further adjusted for ethnicity, and models of the STR for sub-study. Bold numbers indicate statistical significance at the  $\alpha=0.05$  level.

Abbreviations: CI – Confidence interval, HR – Hazard ratio, N – Number of individuals, MHNO – Metabolically healthy no obesity, MHO – Metabolically healthy obesity, MUNO – Metabolically unhealthy no obesity, MUO – Metabolically unhealthy obesity.

**Table S8. Risk of dementia in relation to obesity and metabolic health phenotypes measured in midlife, where metabolically unhealthy status was defined as having at least one unhealthy metabolic component.**

Metabolic health and weight phenotype	The HRS				The STR			
	N	Events	HR	95% CI	N	Events	HR	95% CI
<b>Total analytical sample</b>	4,233	362			5,856	327		
MHNO	547	13	Ref	Ref	1,245	56	Ref	Ref
MHO	168	8	1.76	0.73 – 4.25	51	3	1.57	0.49 – 5.03
MUNO	1,659	163	<b>2.35</b>	<b>1.33 – 4.15</b>	3,781	230	0.94	0.70 – 1.26
MUO	1,859	178	<b>1.96</b>	<b>1.11 – 3.47</b>	779	38	0.92	0.60 – 1.38
<b>Male analytical sample</b>	1,715	161			2,590	146		
MHNO	189	7	Ref	Ref	436	25	Ref	Ref
MHO	59	3	1.22	0.32 – 4.76	13	1	1.06	0.14 – 7.90
MUNO	759	82	1.88	0.86 – 4.11	1,783	102	0.76	0.49 – 1.18
MUO	708	69	1.53	0.69 – 3.37	358	18	0.83	0.45 – 1.53
<b>Female analytical sample</b>	2,518	201			3,266	181		
MHNO	358	6	Ref	Ref	809	31	Ref	Ref
MHO	109	5	2.33	0.71 – 7.68	38	2	1.95	0.47 – 8.17
MUNO	900	81	<b>2.95</b>	<b>1.28 – 6.82</b>	1,998	128	1.10	0.74 – 1.63
MUO	1,151	109	<b>2.51</b>	<b>1.09 – 5.80</b>	421	20	0.98	0.56 – 1.73

Hazard rate ratios (HR) and 95% confidence intervals (CI) from Cox proportional hazard regression, showing risk of dementia in relation to MUO, MUNO, and MHO compared to the reference category MHNO. Metabolically healthy status was defined as having no hypertension, hyperglycemia and dyslipidemia. Results are presented for measures taken in midlife ( $\leq 65$  years), in the total analytical sample, the male analytical sample, and the female analytical sample. All models were adjusted for age, sex, smoking status, and education level. Models of the HRS were further adjusted for ethnicity, and models of the STR for sub-study. Bold numbers indicate statistical significance at the  $\alpha=0.05$  level.

Abbreviations: CI – Confidence interval, HR – Hazard ratio, N – Number of individuals, MHNO – Metabolically healthy no obesity, MHO – Metabolically healthy obesity, MUNO – Metabolically unhealthy no obesity, MUO – Metabolically unhealthy obesity.

**Table S9. Risk of dementia in relation to obesity and metabolic health phenotypes measured in late-life, where metabolically unhealthy status was defined as having at least one unhealthy metabolic component.**

Metabolic health and weight phenotype	The HRS				The STR			
	N	Events	HR	95% CI	N	Events	HR	95% CI
<b>Total analytical sample</b>	7,249	1,927			7,212	1,669		
MHNO	520	111	Ref	Ref	684	155	Ref	Ref
MHO	121	26	0.99	0.65 – 1.50	28	10	1.84	0.97 – 3.50
MUNO	3,810	1,095	0.98	0.81 – 1.19	5,544	1,331	0.98	0.83 – 1.16
MUO	2,798	695	1.01	0.83 – 1.23	956	173	<b>0.77</b>	<b>0.62 – 0.96</b>
<b>Male analytical sample</b>	3,150	788			3,349	710		
MHNO	209	45	Ref	Ref	302	68	Ref	Ref
MHO	53	12	0.95	0.51 – 1.76	7	2	2.11	0.52 – 8.63
MUNO	1,661	443	0.91	0.68 – 1.23	2,668	579	0.99	0.77 – 1.27
MUO	1,227	288	0.99	0.73 – 1.34	372	61	0.87	0.61 – 1.23
<b>Female analytical sample</b>	4,099	1,139			3,863	959		
MHNO	311	66	Ref	Ref	382	87	Ref	Ref
MHO	68	14	1.01	0.57 – 1.77	21	8	1.71	0.83 – 3.53
MUNO	2,149	652	1.05	0.81 – 1.35	2,876	752	0.98	0.78 – 1.22
MUO	1,571	407	1.05	0.81 – 1.36	584	112	<b>0.73</b>	<b>0.55 – 0.97</b>

Hazard rate ratios (HR) and 95% confidence intervals (CI) from Cox proportional hazard regression, showing risk of dementia in relation to MUO, MUNO, and MHO compared to the reference category MHNO. Metabolically healthy status was defined as having no hypertension, hyperglycemia and dyslipidemia. Results are presented for measures taken in late-life (>65 years), in the total analytical sample, the male analytical sample, and the female analytical sample. All models were adjusted for age, sex, smoking status, and education level. Models of the HRS were further adjusted for ethnicity, and models of the STR for sub-study. Bold numbers indicate statistical significance at the  $\alpha=0.05$  level.

Abbreviations: CI – Confidence interval, HR – Hazard ratio, N – Number of individuals, MHNO – Metabolically healthy no obesity, MHO – Metabolically healthy obesity, MUNO – Metabolically unhealthy no obesity, MUO – Metabolically unhealthy obesity.

**Table S10. Risk of dementia in relation to obesity and metabolic health phenotypes, classified as six categories, measured in midlife.**

Metabolic health and weight phenotype	The HRS				The STR			
	N	Events	HR	95% CI	N	Events	HR	95% CI
<b>Total analytical sample</b>	4,233	362			5,856	327		
MHNW	579	36	Ref	Ref	2,050	112	Ref	Ref
MHOW	901	50	0.82	0.53 – 1.26	1,354	80	1.09	0.82 – 1.45
MHO	839	57	0.85	0.56 – 1.30	298	11	0.73	0.39 – 1.36
MUNW	177	24	1.08	0.64 – 1.83	582	40	1.29	0.89 – 1.86
MUOW	549	66	1.21	0.81 – 1.83	1,040	54	0.94	0.67 – 1.31
MUO	1188	129	0.96	0.66 – 1.40	532	30	1.23	0.82 – 1.85
<b>Male analytical sample</b>	1,715	161			2,590	146		
MHNW	175	18	Ref	Ref	689	45	Ref	Ref
MHOW	427	29	1.00	0.55 – 1.82	625	28	0.71	0.44 – 1.15
MHO	353	24	0.86	0.46 – 1.60	105	2	0.28	0.07 – 1.15
MUNW	76	11	1.03	0.48 – 2.20	246	17	1.24	0.71 – 2.18
MUOW	270	31	1.16	0.64 – 2.09	659	37	0.84	0.54 – 1.31
MUO	414	48	0.93	0.54 – 1.63	266	17	1.32	0.74 – 2.33
<b>Female analytical sample</b>	2,518	201			3,266	181		
MHNW	404	18	Ref	Ref	1,361	67	Ref	Ref
MHOW	474	21	0.68	0.36 – 1.28	729	52	1.43	0.99 – 2.05
MHO	486	33	0.87	0.48 – 1.56	193	9	1.12	0.55 – 2.24
MUNW	101	13	1.21	0.57 – 2.54	336	23	1.34	0.83 – 2.17
MUOW	279	35	1.32	0.74 – 2.35	381	17	0.90	0.53 – 1.54
MUO	774	81	1.01	0.60 – 1.72	266	13	1.08	0.59 – 1.95

Hazard rate ratios (HR) and 95% confidence intervals (CI) from Cox proportional hazard regression, showing risk of dementia in relation to MHOW, MHO, MUNW, MUOW, and MUO, compared to the reference category MHNW. Results are presented for measures taken in midlife ( $\leq 65$  years), in the total analytical sample, the male analytical sample, and the female analytical sample. All models were adjusted for age, sex, smoking status, and education level. Models of the HRS were further adjusted for ethnicity, and models of the STR for sub-study. Bold numbers indicate statistical significance at the  $\alpha=0.05$  level.

Abbreviations: CI – Confidence interval, HR – Hazard ratio, N – Number of individuals, MHNW – Metabolically healthy normal weight, MHO – Metabolically healthy obesity, MHOW – Metabolically healthy overweight, MUNW – Metabolically unhealthy normal weight, MUO – Metabolically unhealthy obesity, MUOW – Metabolically unhealthy overweight.

**Table S11. Risk of dementia in relation to obesity and metabolic health phenotypes, classified as six categories, measured in late-life.**

Metabolic health and weight phenotype	The HRS				The STR			
	N	Events	HR	95% CI	N	Events	HR	95% CI
<b>Total analytical sample</b>	7,249	1,927			7,212	1,669		
MHNW	967	270	Ref	Ref	2,014	475	Ref	Ref
MHOW	1,295	285	<b>0.84</b>	<b>0.72 – 0.99</b>	1,469	331	0.92	0.80 – 1.06
MHO	917	194	0.86	0.72 – 1.03	318	59	0.77	0.59 – 1.01
MUNW	640	224	1.07	0.89 – 1.27	1,034	264	1.12	0.97 – 1.31
MUOW	1,428	427	0.93	0.80 – 1.08	1,711	416	1.07	0.94 – 1.23
MUO	2,002	527	1.02	0.88 – 1.18	666	124	0.85	0.70 – 1.04
<b>Male analytical sample</b>	3,150	788			3,349	710		
MHNW	335	95	Ref	Ref	837	183	Ref	Ref
MHOW	638	138	0.85	0.65 – 1.09	674	131	0.91	0.73 – 1.14
MHO	423	81	0.79	0.59 – 1.05	106	17	0.81	0.49 – 1.33
MUNW	204	65	1.07	0.78 – 1.47	500	121	1.22	0.97 – 1.54
MUOW	693	190	0.87	0.68 – 1.11	959	212	1.14	0.94 – 1.40
MUO	857	219	1.06	0.83 – 1.35	273	46	1.02	0.73 – 1.41
<b>Female analytical sample</b>	4,099	1,139			3,863	959		
MHNW	632	175	Ref	Ref	1,177	292	Ref	Ref
MHOW	657	147	0.83	0.66 – 1.03	795	200	0.94	0.78 – 1.13
MHO	494	113	0.94	0.74 – 1.18	212	42	0.76	0.55 – 1.05
MUNW	436	159	1.07	0.86 – 1.32	534	143	1.07	0.87 – 1.30
MUOW	735	237	1.00	0.83 – 1.22	752	204	1.03	0.86 – 1.24
MUO	1,145	308	0.99	0.82 – 1.19	393	78	0.79	0.61 – 1.01

Hazard rate ratios (HR) and 95% confidence intervals (CI) from Cox proportional hazard regression, showing risk of dementia in relation to MHOW, MHO, MUNW, MUOW, and MUO, compared to the reference category MHNW. Results are presented for measures taken in late-life (>65 years), in the total analytical sample, the male analytical sample, and the female analytical sample. All models were adjusted for age, sex, smoking status, and education level. Models of the HRS were further adjusted for ethnicity, and models of the STR for sub-study. Bold numbers indicate statistical significance at the  $\alpha=0.05$  level.

Abbreviations: CI – Confidence interval, HR – Hazard ratio, N – Number of individuals, MHNW – Metabolically healthy normal weight, MHO – Metabolically healthy obesity, MHOW – Metabolically healthy overweight, MUNW – Metabolically unhealthy normal weight, MUO – Metabolically unhealthy obesity, MUOW – Metabolically unhealthy overweight.

## References

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