

Table S1. Association between handgrip strength/TUGT time and EQ-5D-VAS findings in the different age groups

	Model A					Model B					Model C					Model D				
	β	95% CI		Standard β	P	β	95% CI		Standard β	P	β	95% CI		Standard β	P	β	95% CI		Standard β	P
60-79 years																				
Handgrip strength																				
Per unit (kg)	0.178	0.115	0.241	0.132	<0.001	0.106	0.032	0.181	0.079	0.005	0.094	0.021	0.168	0.070	0.012	0.065	-0.007	0.137	0.048	0.078
Per SD	2.027	1.284	2.771	0.128	<0.001	1.204	0.344	2.064	0.076	0.006	1.074	0.225	1.923	0.068	0.013	0.788	-0.044	1.621	0.050	0.063
Per 10%	0.775	0.510	1.041	0.137	<0.001	0.483	0.173	0.793	0.085	0.002	0.431	0.124	0.737	0.076	0.006	0.301	0.000	0.602	0.053	0.050
TUGT time																				
Per unit (s)	-0.268	-0.359	-0.178	-0.133	<0.001	-0.221	-0.313	-0.129	-0.110	<0.001	-0.206	-0.297	-0.115	-0.103	<0.001	-0.153	-0.243	-0.063	-0.076	0.001
Per SD	-3.035	-3.879	-2.191	-0.162	<0.001	-2.620	-3.469	-1.770	-0.140	<0.001	-2.455	-3.289	-1.601	-0.130	<0.001	-1.942	-2.782	-1.102	-0.104	<0.001
Per 10%	-1.121	-1.351	-0.891	-0.217	<0.001	-0.965	-1.206	-0.724	-0.187	<0.001	-0.895	-1.136	-0.653	-0.173	<0.001	-0.760	-1.000	-0.521	-0.147	<0.001
≥ 80 years																				
Handgrip strength																				
Per unit (kg)	0.347	0.119	0.575	0.198	0.003	0.366	0.102	0.630	0.208	0.007	0.340	0.082	0.598	0.194	0.010	0.322	0.063	0.582	0.184	0.015
Per SD	4.406	1.739	7.073	0.214	0.001	4.702	1.658	7.746	0.228	0.003	4.159	1.170	7.149	0.202	0.007	3.876	0.862	6.890	0.188	0.012
Per 10%	1.052	0.219	1.884	0.165	0.014	1.086	0.107	2.066	0.171	0.030	1.014	0.060	1.968	0.159	0.037	0.372	0.084	0.659	0.066	0.011
TUGT time																				
Per unit (s)	-0.382	-0.612	-0.152	-0.211	0.001	-0.345	-0.582	-0.109	-0.191	0.004	-0.258	-0.502	-0.014	-0.142	0.038	-0.269	-0.516	-0.022	-0.148	0.033
Per SD	-3.714	-5.849	-1.580	-0.221	0.001	-3.437	-5.634	-1.240	-0.204	0.002	-2.545	-4.850	-0.240	-0.151	0.031	-2.655	-4.977	-0.354	-0.158	0.024
Per 10%	-2.079	-2.824	-1.334	-0.341	<0.001	-2.059	-2.854	-1.264	-0.338	<0.001	-1.793	-2.611	-0.976	-0.294	<0.001	-1.736	-2.556	-0.916	-0.285	<0.001

Model A: Crude model

Model B: Adjusted for age, sex, nationality, educational level, occupation, and marital status

Model C: Adjusted for age, sex, nationality, educational level, occupation, marital status, smoking status, drinking status, BMI, and physical activity level

Model D: Adjusted for age, sex, nationality, educational level, occupation, marital status, smoking status, drinking status, BMI, physical activity level, CHD, stroke, and T2DM

TUGT, Time up and go test; CHD, coronary heart disease; T2DM, type 2 diabetes mellitus

Table S2. Association between handgrip strength/TUGT time and EQ-5D-VAS findings in the participants with and without chronic diseases

	Model A					Model B					Model C				
	β	95% CI		Standard β	P	β	95% CI		Standard β	P	β	95% CI		Standard β	P
Without chronic diseases		lower	upper				lower	upper				lower	upper		
Handgrip strength															
Per unit (kg)	0.165	0.091	0.240	0.127	<0.001	0.075	-0.015	0.165	0.057	0.104	0.065	-0.024	0.153	0.050	0.153
Per SD	2.054	1.178	2.930	0.134	<0.001	1.081	0.047	2.116	0.071	0.040	0.993	-0.025	2.011	0.065	0.056
Per 10%	0.738	0.420	1.055	0.133	<0.001	0.367	-0.013	0.748	0.066	0.058	0.334	-0.041	0.708	0.060	0.081
TUGT time															
Per unit (s)	-0.264	-0.380	-0.147	-0.126	<0.001	-0.193	-0.311	-0.074	-0.092	0.001	-0.184	-0.301	-0.066	-0.088	0.002
Per SD	-2.711	-3.784	-1.639	-0.140	<0.001	-2.051	-3.146	-0.956	-0.106	<0.001	-1.961	-3.046	-0.875	-0.101	<0.001
Per 10%	-1.173	-1.451	-0.895	-0.230	<0.001	-0.991	-1.291	-0.692	-0.194	<0.001	-0.914	-1.214	-0.614	-0.179	<0.001
With chronic diseases															
Handgrip strength															
Per unit (kg)	0.193	0.096	0.290	0.138	<0.001	0.167	0.051	0.282	0.119	0.005	0.154	0.040	0.268	0.110	0.008
Per SD	2.105	0.956	3.254	0.127	<0.001	1.743	0.405	3.080	0.106	0.011	1.561	0.235	2.887	0.095	0.021
Per 10%	0.730	0.340	1.119	0.130	<0.001	0.603	0.143	1.063	0.108	0.010	0.538	0.082	0.994	0.096	0.021
TUGT time															
Per unit (s)	-0.265	-0.384	-0.146	-0.149	<0.001	-0.226	-0.348	-0.105	-0.127	<0.001	-0.201	-0.322	-0.080	-0.113	0.001
Per SD	-3.145	-4.248	-2.042	-0.189	<0.001	-2.823	-3.956	-1.689	-0.170	<0.001	-2.516	-3.653	-1.379	-0.151	<0.001
Per 10%	-1.072	-1.408	-0.736	-0.210	<0.001	-0.981	-1.341	-0.620	-0.192	<0.001	-0.908	-1.268	-0.548	-0.178	<0.001

Model A: Crude model

Model B: Adjusted for age, sex, nationality, educational level, occupation, and marital status

Model C: Adjusted for age, sex, nationality, educational level, occupation, marital status, smoking status, drinking status, BMI, and physical activity level

Table S3. Association between handgrip strength/TUGT time and EQ-5D index scored 1 in the participants

	Model A	Model B	Model C	Model D
	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
Handgrip strength				
Per unit (kg)	1.033 (1.022-1.043)	1.020 (1.008-1.032)	1.019 (1.006-1.031)	1.017 (1.004-1.030)
Per SD	1.482 (1.314-1.672)	1.304 (1.135-1.498)	1.287 (1.118-1.481)	1.268 (1.101-1.46)
Per 10%	1.134 (1.090-1.180)	1.079 (1.030-1.132)	1.074 (1.024-1.127)	1.067 (1.016-1.12)
Time up and go test (TUGT)				
Per unit (s)	0.958 (0.947-0.970)	0.965 (0.954-0.977)	0.969 (0.957-0.981)	0.971 (0.958-0.983)
Per SD	0.620 (0.555-0.693)	0.666 (0.594-0.746)	0.693 (0.616-0.779)	0.706 (0.626-0.795)
Per 10%	0.818 (0.789-0.849)	0.838 (0.806-0.871)	0.852 (0.818-0.886)	0.856 (0.822-0.891)
60-79 years old				
Handgrip strength				
Per unit (kg)	1.028 (1.016-1.039)	1.018 (1.005-1.031)	1.017 (1.003-1.030)	1.015 (1.001-1.028)
Per SD	1.404 (1.234-1.597)	1.273 (1.099-1.475)	1.259 (1.085-1.462)	1.237 (1.065-1.436)
Per 10%	1.117 (1.070-1.166)	1.076 (1.023-1.131)	1.071 (1.018-1.128)	1.063 (1.009-1.120)
Time up and go test (TUGT)				
Per unit (s)	0.963 (0.951-0.976)	0.968 (0.955-0.981)	0.970 (0.957-0.983)	0.972 (0.959-0.986)
Per SD	0.650 (0.575-0.735)	0.678 (0.598-0.768)	0.698 (0.614-0.793)	0.713 (0.626-0.812)
Per 10%	0.838 (0.805-0.871)	0.851 (0.817-0.887)	0.864 (0.829-0.901)	0.869 (0.833-0.907)
≥80 years old				
Handgrip strength				
Per unit (kg)	1.042 (1.008-1.076)	1.037 (0.998-1.078)	1.035 (0.995-1.076)	1.033 (0.993-1.075)
Per SD	1.646 (1.124-2.41)	1.613 (1.036-2.511)	1.535 (0.980-2.402)	1.508 (0.958-2.372)
Per 10%	1.133 (1.009-1.271)	1.115 (0.969-1.283)	1.110 (0.962-1.280)	1.100 (0.952-1.271)
Time up and go test (TUGT)				
Per unit (s)	0.949 (0.920-0.980)	0.951 (0.920-0.983)	0.958 (0.925-0.993)	0.959 (0.925-0.995)
Per SD	0.576 (0.431-0.769)	0.578 (0.425-0.784)	0.619 (0.446-0.859)	0.623 (0.447-0.868)
Per 10%	0.701 (0.608-0.808)	0.692 (0.594-0.807)	0.708 (0.604-0.831)	0.710 (0.605-0.833)
Without chronic diseases				
Handgrip strength				
Per unit (kg)	1.031 (1.017-1.045)	1.014 (0.998-1.031)	1.014 (0.997-1.031)	
Per SD	1.503 (1.281-1.764)	1.287 (1.069-1.549)	1.284 (1.063-1.551)	
Per 10%	1.137 (1.077-1.199)	1.07 (1.003-1.141)	1.071 (1.003-1.143)	
Time up and go test (TUGT)				
Per unit (s)	0.959 (0.943-0.976)	0.967 (0.950-0.984)	0.969 (0.951-0.987)	
Per SD	0.629 (0.537-0.737)	0.679 (0.576-0.800)	0.695 (0.587-0.824)	
Per 10%	0.820 (0.781-0.862)	0.840 (0.796-0.886)	0.854 (0.809-0.902)	
With chronic diseases				
Handgrip strength				

Per unit (kg)	1.032 (1.016-1.049)	1.025 (1.006-1.044)	1.024 (1.005-1.043)
Per SD	1.412 (1.175-1.697)	1.299 (1.052-1.604)	1.287 (1.039-1.593)
Per 10%	1.117 (1.052-1.186)	1.081 (1.007-1.159)	1.075 (1.001-1.155)
Time up and go test (TUGT)			
Per unit (s)	0.96 (0.945-0.977)	0.966 (0.949-0.983)	0.969 (0.952-0.987)
Per SD	0.629 (0.538-0.737)	0.665 (0.565-0.781)	0.695 (0.589-0.82)
Per 10%	0.823 (0.778-0.87)	0.842 (0.794-0.893)	0.852 (0.803-0.904)

Model A: Crude model

Model B: Adjusted for age, sex, nationality, educational level, occupation, and marital status

Model C: Adjusted for age, sex, nationality, educational level, occupation, marital status, smoking status, drinking status, BMI, and physical activity level

Model D: Adjusted for age, sex, nationality, educational level, occupation, marital status, smoking status, drinking status, BMI, physical activity level, CHD, stroke, and T2DM

TUGT, Time up and go test