Supplementary Table SI. SNPs associated with TL (initial analysis)

SNP	Effect allele	Other allele	EAF	Beta	SE	P-value	R2	F statistic
rs12637184	A	G	0.24	-0.094	0.002	1E-200	0.34%	1634
rs7705526	A	C	0.33	0.078	0.002	1E-200	0.27%	1289
rs35640778	A	G	0.02	-0.209	0.007	9.59401E-195	0.19%	886
rs9419958	C	T	0.86	-0.081	0.003	2.60016E-167	0.16%	760
rs6536702	A	G	0.77	0.053	0.002	9.39723E-111	0.11%	500
rs7790856	T	C	0.29	-0.044	0.002	1.80011E-87	0.08%	393
rs143190905	T	G	0.08	-0.072	0.004	1.59993E-85	0.08%	384
rs2967355	C	A	0.77	-0.046	0.002	4.00037E-83	0.08%	373
rs611646	A	T	0.41	-0.037	0.002	3.50026E-73	0.07%	327
rs3891167	G	A	0.25	-0.043	0.002	1.20005E-70	0.07%	316
rs1291143	C	A	0.85	0.049	0.003	1.80011E-69	0.07%	310
rs4724	A	G	0.12	-0.055	0.003	9.79941E-69	0.06%	307
rs10768683	G	C	0.84	0.047	0.003	1.50003E-64	0.06%	288
rs202034370**	T	TA	0.98	0.103	0.007	2.60016E-56	0.05%	250
rs8105767	G	A	0.29	0.033	0.002	2.49977E-50	0.05%	223
rs932002*	T	C	0.15	-0.040	0.003	7.29962E-47	0.04%	207
rs10112752**	A	G	0.43	-0.029	0.002	9.49948E-46	0.04%	202
rs11412296	T	TA	0.76	0.033	0.002	1.39991E-45	0.04%	201
rs137901416	A	G	0.10	0.046	0.003	4.70002E-43	0.04%	189
rs17803849**	T	C	0.41	0.027	0.002	4.19952E-41	0.04%	180
rs2763979*	T	C	0.36	-0.028	0.002	1.29987E-40	0.04%	178
rs76065543	T	C	0.14	0.034	0.003	4.19952E-32	0.03%	139
rs11584821	T	C	0.18	-0.031	0.003	2.99985E-31	0.03%	135
rs11557154*	T	C	0.13	-0.034	0.003	1.10002E-30	0.03%	133
rs2276182	G	C	0.40	0.023	0.002	2.80027E-30	0.03%	131
rs939916	A	G	0.67	0.024	0.002	6.59933E-29	0.03%	124
rs12412214	A	G	0.28	-0.025	0.002	3.40017E-28	0.03%	121
rs144204502	T	C	0.01	-0.101	0.009	3.40017E-28	0.03%	121
rs762679**	A	T	0.86	0.031	0.003	1.39991E-27	0.03%	118
rs3785074	G	A	0.29	0.024	0.002	2.60016E-27	0.02%	117

rs11699829	A	G	0.03	0.064	0.006	1.50003E-26	0.02%	114
rs11117354	C	T	0.70	0.023	0.002	3.40017E-26	0.02%	112
rs17677991*	G	C	0.34	0.022	0.002	4.40048E-26	0.02%	112
rs28481848	G	A	0.14	-0.030	0.003	8.19974E-26	0.02%	110
rs28502153	A	C	0.38	-0.022	0.002	1.20005E-25	0.02%	110
rs2306646**	C	G	0.56	-0.021	0.002	3.29989E-25	0.02%	108
rs1985369	G	A	0.87	-0.031	0.003	3.59998E-25	0.02%	107
rs131797**	T	TAAAAA	0.24	0.024	0.002	6.79986E-25	0.02%	106
rs78491606	C	A	0.02	-0.076	0.007	1.9002E-24	0.02%	104
rs75664430	G	C	0.25	-0.024	0.002	3.59998E-24	0.02%	103
rs4731541	G	C	0.62	-0.021	0.002	1.39991E-23	0.02%	100
rs61748181	T	C	0.03	-0.059	0.006	2.80027E-23	0.02%	99
rs56799554*	G	A	0.17	-0.026	0.003	2.99985E-22	0.02%	94
rs762810	A	C	0.35	-0.020	0.002	4.30031E-22	0.02%	93
rs34550383	C	CT	0.55	-0.019	0.002	8.60003E-22	0.02%	92
rs117512405	A	G	0.02	-0.079	0.008	9.49948E-22	0.02%	92
rs5742915	C	T	0.45	0.019	0.002	1.59993E-21	0.02%	91
rs11991877**	A	T	0.89	-0.030	0.003	3.19963E-21	0.02%	89
rs1332941	G	A	0.82	0.026	0.003	5.90065E-21	0.02%	88
rs2056726	A	G	0.21	-0.023	0.002	7.89951E-21	0.02%	88
rs142426306	T	C	0.04	-0.050	0.005	8.69961E-21	0.02%	87
rs56061761	A	G	0.33	-0.020	0.002	6.90081E-20	0.02%	83
rs871134	T	C	0.57	-0.018	0.002	1.69981E-19	0.02%	82
rs6669563	A	G	0.44	0.018	0.002	2.09991E-19	0.02%	81
rs10905255	T	G	0.58	-0.018	0.002	2.60016E-19	0.02%	81
rs76666449	C	T	0.10	0.030	0.003	8.19974E-19	0.02%	78
rs59409453	G	A	0.73	0.020	0.002	1.59993E-18	0.02%	77
rs7772289	T	G	0.50	0.018	0.002	1.69981E-18	0.02%	77
rs116863223	A	G	0.01	-0.082	0.009	2.60016E-18	0.02%	76
rs4616688*	T	G	0.53	-0.017	0.002	4.49987E-18	0.02%	75
rs150150565	T	C	0.02	0.064	0.007	6.79986E-18	0.02%	74
rs6776756	A	G	0.60	-0.017	0.002	1.10002E-17	0.02%	73

rs185174247	A	G	0.06	0.037	0.004	1.10002E-17	0.02%	73
rs80324517	A	G	0.05	0.040	0.005	1.80011E-17	0.02%	72
rs80116508	A	G	0.06	-0.035	0.004	1.99986E-17	0.02%	72
rs182059586**	C	T	0.03	-0.057	0.007	4.90004E-17	0.01%	70
rs28577594*	C	G	0.71	0.019	0.002	5.40008E-17	0.01%	70
rs201558190**	C	T	0.36	-0.018	0.002	6.4003E-17	0.01%	70
rs76219171*	A	G	0.06	0.036	0.004	7.8001E-17	0.01%	69
rs60998424	G	T	0.03	-0.050	0.006	8.49963E-17	0.01%	69
rs117630647	A	G	0.02	0.060	0.007	1.39991E-16	0.01%	68
rs66731853	A	G	0.32	-0.018	0.002	1.50003E-16	0.01%	68
rs79977579	A	C	0.10	0.028	0.003	2.29985E-16	0.01%	67
rs9940099***	T	G	0.06	-0.034	0.004	3.19963E-16	0.01%	67
rs6881568	A	C	0.36	0.017	0.002	3.69999E-16	0.01%	66
rs28363070**	A	G	0.01	0.076	0.010	3.50026E-15	0.01%	62
rs2230590*	C	T	0.51	-0.016	0.002	3.59998E-15	0.01%	62
rs1023767*	A	G	0.24	-0.018	0.002	5.00035E-15	0.01%	61
rs2282764*	G	A	0.14	-0.022	0.003	9.30037E-15	0.01%	60
rs1957937	T	A	0.16	0.021	0.003	1.9002E-14	0.01%	59
rs11212631	C	T	0.20	-0.019	0.003	4.70002E-14	0.01%	57
rs10773176	G	A	0.74	-0.017	0.002	5.19996E-14	0.01%	57
rs4498805	T	G	0.55	0.015	0.002	5.70033E-14	0.01%	56
rs34896435**	G	C	0.47	0.015	0.002	6.4003E-14	0.01%	56
rs13230646	C	T	0.25	-0.017	0.002	8.9002E-14	0.01%	56
rs188918174**	T	C	0.04	0.040	0.005	1.20005E-13	0.01%	55
rs11579626	C	A	0.08	0.027	0.004	1.29987E-13	0.01%	55
rs8102497	A	G	0.43	-0.015	0.002	1.39991E-13	0.01%	55
rs117407747	T	C	0.03	0.045	0.006	1.80011E-13	0.01%	54
rs141214782**	TTATC	T	0.10	-0.025	0.003	1.99986E-13	0.01%	54
rs77231040**	C	G	0.01	0.099	0.013	1.99986E-13	0.01%	54
rs10774624*	A	G	0.53	0.015	0.002	2.90001E-13	0.01%	53
rs142730696**	TTTTTC	T	0.86	0.022	0.003	6.29941E-13	0.01%	52
rs9398196	G	A	0.52	-0.014	0.002	9.49948E-13	0.01%	51

rs56178008**	A	T	0.44	0.014	0.002	9.70063E-13	0.01%	51
rs9878436	T	C	0.43	-0.014	0.002	1.20005E-12	0.01%	50
rs73581419	T	C	0.11	0.023	0.003	1.29987E-12	0.01%	50
rs4695407	G	A	0.51	0.014	0.002	1.50003E-12	0.01%	50
rs112394943**	C	T	0.16	-0.020	0.003	1.59993E-12	0.01%	50
rs35500378**	CACTT	C	0.61	0.014	0.002	1.99986E-12	0.01%	50
rs869785	C	T	0.67	-0.015	0.002	4.40048E-12	0.01%	48
rs6587577	G	A	0.83	-0.018	0.003	4.79954E-12	0.01%	48
rs6007020	C	T	0.37	0.014	0.002	4.79954E-12	0.01%	48
rs2555104**	C	A	0.43	-0.014	0.002	6.59933E-12	0.01%	47
rs139795227*	C	A	0.01	0.060	0.009	6.70039E-12	0.01%	47
rs12925933	C	A	0.66	-0.015	0.002	7.00003E-12	0.01%	47
rs7099229*	A	G	0.27	-0.015	0.002	8.4004E-12	0.01%	47
rs10840270*	G	C	0.66	0.014	0.002	1.29987E-11	0.01%	46
rs10845387*	A	G	0.35	-0.014	0.002	1.50003E-11	0.01%	45
rs4530278	T	G	0.60	0.014	0.002	1.50003E-11	0.01%	46
rs12932179	G	A	0.56	-0.014	0.002	1.80011E-11	0.01%	45
rs11769630	A	T	0.07	-0.026	0.004	4.30031E-11	0.01%	43
rs41304832	A	G	0.01	0.061	0.009	5.00035E-11	0.01%	43
rs13062095*	C	T	0.33	0.014	0.002	9.70063E-11	0.01%	42
rs3093888	A	G	0.05	-0.029	0.005	1.5E-10	0.01%	41
rs6790988	G	A	0.74	0.015	0.002	1.79999E-10	0.01%	41
rs9955360	A	C	0.87	-0.019	0.003	2.19999E-10	0.01%	40
rs7164950	G	A	0.41	0.013	0.002	2.30001E-10	0.01%	40
rs2538745**	C	T	0.60	-0.013	0.002	3.09999E-10	0.01%	40
rs376641875**	C	CATAA	0.93	-0.027	0.004	3.29997E-10	0.01%	40
rs2293579*	A	G	0.39	-0.013	0.002	3.29997E-10	0.01%	40
rs429358*	C	T	0.15	0.017	0.003	3.79997E-10	0.01%	39
rs73730598	A	G	0.05	0.027	0.004	4.70002E-10	0.01%	39
rs4743037	T	C	0.23	0.015	0.002	5.1E-10	0.01%	39
rs1907702	A	G	0.77	0.015	0.002	5.89997E-10	0.01%	38
rs12369950	C	T	0.14	-0.018	0.003	8E-10	0.01%	38

rs77732866**	A	G	0.14	0.018	0.003	9.20005E-10	0.01%	37
rs6590343	G	A	0.52	0.012	0.002	1.5E-09	0.01%	37
rs41269079	A	T	0.19	0.015	0.003	1.7E-09	0.01%	36
rs9600019	T	C	0.34	0.013	0.002	2.39999E-09	0.01%	36
rs111527438	C	T	0.35	0.013	0.002	3.09999E-09	0.01%	35
rs7209057	A	G	0.56	0.012	0.002	5.69994E-09	0.01%	34
rs450962**	G	A	0.28	0.014	0.002	5.89997E-09	0.01%	34
rs111950327	C	G	0.06	0.024	0.004	5.89997E-09	0.01%	34
rs139669835	T	C	0.01	-0.061	0.011	6.1E-09	0.01%	34
rs7221585	T	C	0.22	0.014	0.002	6.69993E-09	0.01%	34
rs10805346*	C	T	0.44	0.012	0.002	7.00003E-09	0.01%	34
rs1003322*	A	C	0.21	0.014	0.002	1E-08	0.01%	33
rs6659669	T	C	0.61	-0.012	0.002	1.09999E-08	0.01%	33
rs6054257	A	G	0.79	-0.014	0.002	1.09999E-08	0.01%	33
rs670180***	A	T	0.57	-0.012	0.002	1.2E-08	0.01%	33
rs6751209**	C	T	0.20	-0.014	0.002	1.6E-08	0.01%	32
rs55747751*	A	G	0.08	-0.021	0.004	1.7E-08	0.01%	32
rs3767952	A	G	0.23	0.013	0.002	1.79999E-08	0.01%	32
rs6584579*	G	A	0.40	0.011	0.002	2E-08	0.01%	32
rs17445108	A	G	0.13	-0.017	0.003	2E-08	0.01%	31
rs117034449	A	G	0.02	0.037	0.007	2.1E-08	0.01%	31
rs11426156**	T	TA	0.40	-0.012	0.002	2.19999E-08	0.01%	31
rs12451892*	C	T	0.38	-0.012	0.002	2.19999E-08	0.01%	31
rs11085072	T	C	0.24	-0.013	0.002	2.59998E-08	0.01%	31
rs2977608*	C	A	0.74	0.013	0.002	2.99999E-08	0.01%	31
rs113525195	A	C	0.29	-0.012	0.002	3.09999E-08	0.01%	31
rs7555872	G	A	0.04	0.027	0.005	4.60002E-08	0.01%	30

*SNPs with pleiotropic effects were excluded from the analysis (25 SNPs)
**SNPs not available in the outcome dataset (25 SNPs)
***Removed from the analysis because the following SNPs are palindromic with intermediate allele frequencies (2 SNPs)
Abbreviations: EAF, effect allele frequency; R^2, proportion of variance explained; SE, standard error; SNPs, single-nucleotide polymorphisms; TL, telomere length.

Supplementary Table SII. Mendelian Randomization between TL and CAC (initial analysis)

Exposure	Method	nSNP	β	SE	P
TL	IVW	101	-0.47	0.09	<0.001
	MR-Egger	101	-0.12	0.16	0.47
	WME	101	-0.49	0.15	<0.001

Abbreviations: β, MR estimate; IVW, inverse-variance weighted method; nSNP, number of single-nucleotide polymorphisms; P, p-value; SE, standard error; TL, telomere length; WME, the weighted median method

Supplementary Table SIII. Sensitivity analyses of the Mendelian Randomization on TL and CAC (initial analysis)

Exposure	Cohrane's Q IVW		Cohrane's Q MR Egger		MR Egger		MR-PRESSO	
	value	P	value	P	intercept	P	outliers	Global P test
TL	102.24	0.42	95.42	0.58	-0.012	0.01	-	0.51

Abbreviations: IVW, inverse-variance weighted method; MR-PRESSO, MR Pleiotropy RESidual Sum and Outlier; P, p-value; TL, telomere length

Supplementary Table SIV. SNPs associated with TL (three sample)

SNP	Effect allele	Other allele	EAF	Beta	SE	P-value	R2	F statistic
rs10936600	T	A	0.24	0.056	0.024	1.00E-200	0.32%	1600
rs13137667	C	T	0.97	0.050	0.057	4.70E-05	0.003%	17
rs228595	A	G	0.41	0.011	0.019	1.30E-72	0.07%	325
rs2302588	C	G	0.10	0.014	0.032	2.60E-42	0.04%	186
rs2853677	A	G	0.58	-0.001	0.026	1.10E-160	0.15%	730
rs34978822	G	C	0.02	-0.031	0.110	1.30E-182	0.17%	830
rs3785074	G	A	0.29	-0.052	0.023	2.60E-27	0.02%	117
rs4691895	C	G	0.78	0.011	0.023	2.10E-110	0.10%	498
rs62053580	G	A	0.17	-0.002	0.031	5.00E-20	0.02%	84
rs73624724	C	T	0.14	-0.010	0.031	8.90E-36	0.03%	156
rs75691080	T	C	0.09	0.107	0.046	9.20E-97	0.09%	436
rs7705526	A	C	0.33	-0.017	0.029	1.00E-200	0.26%	1289
rs9419958	C	T	0.86	0.078	0.027	2.60E-167	0.16%	760

Abbreviations: EAF, effect allele frequency; MR, Mendelian randomization; R^2, proportion of variance explained; SE, standard error; SNPs, single-nucleotide polymorphisms; TL, telomere length

Supplementary Table SV. SNPs associated with IEAA

SNP	Effect allele	Other allele	EAF	Beta	SE	P-value	R2	F statistic
rs10447389	A	G	0.27	-0.276	0.034	4.42E-16	3.00%	66
rs10732882	G	T	0.59	0.241	0.032	3.68E-14	2.79%	57
rs10735418	C	T	0.37	-0.195	0.032	1.14E-09	1.78%	37
rs10949481	T	A	0.05	-1.082	0.070	4.56E-54	11.80%	240
rs12043492	T	C	0.42	0.217	0.031	4.35E-12	2.29%	48
rs12666349	C	T	0.20	-0.255	0.044	5.23E-09	2.06%	34
rs12903325	G	T	0.24	0.222	0.036	5.48E-10	1.79%	39
rs144317085*	T	A	0.04	-0.514	0.083	6.42E-10	1.97%	38
rs1488106	C	T	0.63	-0.183	0.031	4.25E-09	1.56%	35
rs1511762	C	T	0.78	-0.264	0.037	1.53E-12	2.38%	50
rs1726672	T	C	0.30	-0.204	0.033	6.05E-10	1.76%	38
rs2275558*	A	G	0.22	-0.234	0.040	6.44E-09	1.88%	34
rs2492286	T	G	0.15	0.281	0.043	5.29E-11	2.03%	43
rs2736099	G	A	0.65	-0.233	0.033	3.47E-12	2.47%	48
rs34003787	T	C	0.09	0.324	0.058	2.54E-08	1.65%	31
rs3917672	G	A	0.51	0.262	0.030	5.95E-18	3.43%	74
rs57941717	T	G	0.25	0.291	0.036	3.71E-16	3.19%	66
rs6414374	G	A	0.84	-0.321	0.042	1.42E-14	2.81%	59
rs6577536	G	A	0.52	-0.197	0.030	6.73E-11	1.93%	42
rs75243280	C	T	0.33	0.232	0.034	7.37E-12	2.39%	47
rs7550821	T	C	0.24	-0.255	0.035	3.27E-13	2.40%	53
rs7627756	A	G	0.56	0.216	0.030	6.27E-13	2.30%	52
rs79111787*	C	T	0.03	0.908	0.141	1.28E-10	5.13%	41

*SNPs with pleiotropic effects were excluded from the analysis (3 SNPs)

Abbreviations: IEAA, Intrinsic Epigenetic Age Acceleration; EAF, effect allele frequency; R^2, proportion of variance explained; SE, standard error; SNP, single-nucleotide polymorphism;

Supplementary Table SVI. SNPs associated with PhenoAge

SNP	Effect allele	Other allele	EAF	Beta	SE	P-value	R2	F statistic
rs11190127	A	C	0.38	0.248	0.040	3.83E-10	2.90%	39
rs11253338	T	C	0.18	0.285	0.049	8.48E-09	2.43%	33
rs116853700	A	G	0.04	0.552	0.098	1.59E-08	2.48%	32
rs1990053	A	G	0.42	0.257	0.038	2.05E-11	3.23%	45
rs3829957	T	C	0.20	-0.380	0.048	3.51E-15	4.57%	62
rs678553	C	T	0.31	-0.327	0.041	2.27E-15	4.57%	63
rs7228835	C	G	0.12	-0.514	0.061	3.30E-17	5.66%	71
rs73028070	A	G	0.08	-0.433	0.077	1.74E-08	2.71%	32
rs752223	A	G	0.08	-0.560	0.072	7.20E-15	4.71%	61
rs75407001	T	C	0.05	-1.118	0.117	1.34E-21	11.61%	91

Abbreviations: EAF, effect allele frequency; R^2, proportion of variance explained; SE, standard error; SNP, single-nucleotide polymorphism; PhenoAge, Phenotypic Age

Supplementary Table SVII. SNPs associated with loose teeth

SNP	Effect allele	Other allele	EAF	Beta	SE	P-value	R2	F statistic
rs10794293	C	T	0.62	-0.002	0.0005	1.65E-06	0.0003%	23
rs10843141	T	G	0.31	0.003	0.001	5.54E-08	0.0003%	30
rs11553764	T	C	0.17	-0.003	0.001	1.24E-06	0.0003%	24
rs117295134	A	G	0.04	0.006	0.001	1.01E-06	0.0003%	24
rs118097352	C	T	0.01	0.014	0.003	3.06E-06	0.0003%	22
rs118130940	T	C	0.02	0.008	0.002	4.69E-06	0.0002%	21
rs1389962	T	C	0.03	0.007	0.001	3.03E-06	0.0002%	22
rs146307375	T	C	0.03	0.007	0.001	1.42E-06	0.0003%	23
rs1874695	A	C	0.51	0.002	0.0005	1.75E-06	0.0003%	23
rs192726388	G	T	0.01	0.011	0.002	1.26E-06	0.0003%	23
rs2415965	G	C	0.24	0.003	0.001	1.06E-07	0.0003%	28
rs3763469	C	T	0.22	-0.003	0.001	2.89E-07	0.0003%	26
rs3829655*	C	G	0.44	0.003	0.0005	2.81E-08	0.0003%	31
rs55853752	C	T	0.17	-0.003	0.001	1.68E-06	0.0003%	23
rs55895696	T	G	0.17	0.003	0.001	2.07E-06	0.0003%	23

rs72664582	T	C	0.07	0.005	0.001	2.14E-06	0.0003%	22
rs77239350	T	G	0.02	0.007	0.002	3.74E-06	0.0002%	21
rs78548485	T	G	0.05	0.005	0.001	3.61E-06	0.0002%	21
rs9428485	T	C	0.57	-0.002	0.0005	2.94E-06	0.0002%	22

*Removed from the analysis because the following SNPs are palindromic with intermediate allele frequencies (1 SNPs)
Abbreviations: EAF, effect allele frequency; R^2, proportion of variance explained; SE, standard error; SNP, single-nucleotide polymorphism

Supplementary Table SVIII. SNPs associated with bleeding gums

SNP	Effect allele	Other allele	EAF	Beta	SE	P-value	R2	F statistic
rs9543294	C	T	0.51	-0.005	0.001	3.59236E-09	0.001%	35
rs10838634	G	A	0.90	-0.007	0.001	7.23536E-08	0.001%	29
rs1400906*	G	C	0.40	-0.004	0.001	2.38419E-07	0.001%	27
rs112981731	A	C	0.05	0.010	0.002	3.67748E-07	0.001%	26
rs1856320	G	A	0.90	0.007	0.001	3.9112E-07	0.001%	26
rs7125773	C	T	0.70	0.004	0.001	4.1359E-07	0.001%	26
rs12883171	T	C	0.27	0.005	0.001	4.64644E-07	0.001%	25
rs10948120	A	G	0.27	0.005	0.001	4.89542E-07	0.001%	25
rs150064030	A	G	0.07	0.008	0.002	4.9049E-07	0.001%	25
rs7372443	C	T	0.72	0.005	0.001	6.00454E-07	0.001%	25
rs7181587	T	C	0.23	0.005	0.001	6.72357E-07	0.001%	25
rs35226696*	T	C	0.23	0.005	0.001	7.55318E-07	0.001%	24
rs78456257	T	C	0.03	0.012	0.002	9.40741E-07	0.001%	24
rs7967907	G	A	0.12	-0.006	0.001	1.04109E-06	0.001%	24
rs75828991	C	T	0.13	0.006	0.001	1.16466E-06	0.001%	24
rs35169207*	T	C	0.11	0.006	0.001	1.25832E-06	0.001%	23
rs10890292	C	G	0.27	0.004	0.001	1.40449E-06	0.001%	23
rs1130409	G	T	0.48	0.004	0.001	1.44441E-06	0.001%	23
rs1897030	G	C	0.98	0.013	0.003	1.47008E-06	0.001%	23
rs1453083*	T	C	0.03	0.012	0.002	1.51607E-06	0.001%	23
rs113528366	G	C	0.16	-0.005	0.001	1.80509E-06	0.001%	23
rs2918145	T	C	0.69	0.004	0.001	2.12129E-06	0.001%	22
rs55957655	C	T	0.21	-0.005	0.001	2.1927E-06	0.001%	22
rs10432705*	A	G	0.20	0.005	0.001	2.3068E-06	0.001%	22

rs11154637	T	C	0.47	0.004	0.001	2.45969E-06	0.001%	22
rs7958749	T	G	0.44	-0.004	0.001	2.97276E-06	0.001%	22
rs9809341	T	C	0.12	-0.006	0.001	3.08227E-06	0.001%	22
rs113762400	A	G	0.11	-0.006	0.001	3.24228E-06	0.001%	22
rs17103088	G	A	0.25	-0.004	0.001	3.30195E-06	0.001%	22
rs17595265	G	A	0.22	-0.005	0.001	3.35135E-06	0.001%	22
rs4946822	T	A	0.83	-0.005	0.001	3.53354E-06	0.001%	22
rs4465657	G	A	0.11	-0.006	0.001	3.56361E-06	0.001%	21
rs4795467	T	C	0.16	-0.005	0.001	4.07615E-06	0.001%	21
rs117123103	A	G	0.02	0.015	0.003	4.36978E-06	0.001%	21
rs11718256	T	C	0.16	-0.005	0.001	4.51554E-06	0.001%	21

*SNPs not available in the outcome dataset
Abbreviations: EAF, effect allele frequency; R^2, proportion of variance explained; SE, standard error; SNP, single-nucleotide polymorphism

Supplementary Table SIX. SNPs associated with denture use

SNP	Effect allele	Other allele	EAF	Beta	SE	P-value	R2	F statistic
rs1122171	T	C	0.59	0.012	0.001	5.2723E-37	0.007%	162
rs9358912	T	G	0.27	-0.010	0.001	1.0266E-23	0.004%	101
rs72748935	C	T	0.55	0.008	0.001	1.12772E-16	0.003%	69
rs12932673	G	C	0.19	0.008	0.001	1.57979E-12	0.002%	50
rs693906	C	G	0.16	0.009	0.001	1.03633E-11	0.002%	46
rs188488867*	T	C	0.04	-0.017	0.002	1.26357E-11	0.002%	46
rs786272	A	G	0.66	0.006	0.001	3.31207E-11	0.002%	44
rs9831002	G	T	0.51	0.006	0.001	5.65067E-11	0.002%	43
rs10811723	G	A	0.71	0.006	0.001	3.8642E-10	0.002%	39
rs58150062	A	G	0.31	-0.006	0.001	4.62935E-10	0.002%	39
rs11264312	C	T	0.51	0.005	0.001	1.89287E-09	0.002%	36
rs57940982	G	A	0.12	-0.008	0.001	3.82975E-09	0.002%	35
rs62106258*	C	T	0.05	-0.012	0.002	5.68905E-09	0.001%	34
rs10956340*	C	A	0.58	-0.005	0.001	7.01795E-09	0.001%	34
rs3739524	G	T	0.16	0.007	0.001	1.12657E-08	0.001%	33
rs7428430	T	C	0.49	-0.005	0.001	1.36568E-08	0.001%	32
rs62012782	T	C	0.16	0.007	0.001	2.27065E-08	0.001%	31

rs1482698	C	G	0.39	0.005	0.001	3.15973E-08	0.001%	31
rs4841139*	G	A	0.42	-0.005	0.001	4.58385E-08	0.001%	30
rs2421616	G	A	0.41	-0.005	0.001	4.94242E-08	0.001%	30

*SNPs not available in the outcome dataset (4 SNPs)
Abbreviations: EAF, effect allele frequency; R^2, proportion of variance explained; SE, standard error; SNP, single-nucleotide polymorphism

Supplementary Table SX. Mendelian Randomization between loose teeth, bleeding gums, denture use, and CAC

Exposure	Method	nSNP	β	SE	P
Loose teeth	IVW	18	-0.92	3.00	0.76
	MR-Egger	18	-8.15	7.36	0.28
	WME	18	-1.14	3.41	0.74
Bleeding gums	IVW	30	1.47	0.93	0.12
	MR-Egger	30	4.19	3.55	0.25
	WME	30	1.63	1.43	0.25
Denture use	IVW	15	0.68	0.95	0.48
	MR-Egger	15	-0.99	3.52	0.78
	WME	15	0.23	1.09	0.83

Abbreviations: β, MR estimate; IVW, inverse-variance weighted method; nSNP, number of single-nucleotide polymorphisms; P, p-value; SE, standard error; WME, the weighted median method

Supplementary Table SXI. Sensitivity analyses of the Mendelian Randomization on loose teeth, bleeding gums, denture use, and CAC

Exposure	Cohrane's Q IVW		Cohrane's Q MR Egger		MR Egger		MR-PRESSO	
	value	P	value	P	intercept	P	outliers	Global P test
Loose teeth	30.96	0.02	28.88	0.02	0.03	0.30	-	0.02
Bleeding gums	28.79	0.48	28.16	0.46	-0.01	0.43	-	0.49
Denture use	20.22	0.12	19.85	0.10	0.01	0.63	-	0.16

Abbreviations: IVW, inverse-variance weighted method; MR-PRESSO, MR Pleiotropy RESidual Sum and Outlier; P, p-value