Table S1. Comparison of baseline characteristics between healthy, gingivitis and periodontitis stages (N=1,057).

	No Periodontitis		**Periodontitis**			P-value[#]
	Healthy (n=339)	Gingivitis (n=84)	Stage 1 (Mild) (n=145)	Stage 2 (Moderate) (n=234)	Stage 3 (Severe) (n=255)	
Age, mean (SD)	55.1 (17.4)	53.6 (19.2)	60.2 (16.4)	66.1 (13)	67.2 (11.2)	< 0.001
Gender, n (%)						
Female (n=610)	222 (36.4)	61 (10.0)	81 (13.3)	123 (20.2)	123 (20.2)	< 0.001
Male (n=447)	117 (26.2)	23 (5.1)	64 (14.3)	111 (24.8)	132 (29.5)	
Race, n (%)						
Caucasian (n=916)	287 (31.3)	72 (7.9)	130 (14.2)	204 (22.3)	223 (24.3)	-
Black (n=130)	49 (37.7)	8 (6.2)	14 (10.8)	28 (21.5)	31 (23.8)	
Asian (n=11)	3 (27.3)	4 (36.4)	1 (9.1)	2 (18.2)	1 (9.1)	
Education level, n (%)						
No education (n=42)	8 (19.0)	3 (7.1)	6 (14.3)	11 (26.2)	14 (33.3)	< 0.001
Basic (n=410)	106 (25.9)	28 (6.8)	52 (12.7)	100 (24.4)	124 (30.2)	
Medium (n=490)	161 (32.9)	44 (9)	77 (15.7)	109 (22.2)	99 (20.2)	
Higher (n=115)	64 (55.7)	9 (7.8)	10 (8.7)	14 (12.2)	18 (15.7)	
Smoking habits, n (%)						
Never (n=624)	236 (37.8)	58 (9.3)	88 (14.1)	122 (19.6)	120 (19.2)	< 0.001
Former (n=288)	70 (24.3)	13 (4.5)	37 (12.8)	74 (25.7)	94 (32.6)	
Current (n=145)	33 (22.8)	13 (9.0)	20 (13.8)	38 (26.2)	41 (28.3)	
Income, mean (SD) (€)	1,129.4 (779.5)	960.6 (701.9)	992.7 (742.6)	992.6 (632.00)	965.1 (657.3)	0.033
Clinical variables						
Hypertension, n (%)						
No (n=357)	150 (42.0)	38 (10.6)	46 (12.9)	55 (15.4)	68 (19.0)	< 0.001
Yes (n=700)	189 (27.0)	46 (6.6)	99 (14.1)	179 (25.6)	187 (26.7)	
SBP, mean (SD)	129.9 (20.3)	127.7 (19.1)	133.1 (20.9)	137.7 (20.3)	137.3 (20.0)	< 0.001
DBP, mean (SD)	78.1 (13.3)	77.3 (12.8)	78.5 (13.8)	79.2 (13.1)	80.5 (14.0)	0.269
SBP≥140 mmHg, n (%)						

No (n= 681)	246 (36.1)	62 (9.1)	94 (13.8)	131 (19.2)	148 (21.7)	< 0.001
Yes (n= 376)	93 (24.7)	22 (5.9)	51 (13.6)	103 (27.4)	107 (28.5)	
Taking antihypertensive medication, n (%)						
Yes (n=532)	135 (39.8)	37 (44.0)	73 (50.3)	131 (56.0)	156 (61.2)	< 0.001
No (n=525)	204 (60.2)	47 (56.0)	72 (49.7)	103 (44.0)	99 (38.8)	
Number of medical conditions, mean (SD)	1.90 (1.63)	1.87 (1.49)	2.24 (1.6)	2.37 (1.59)	2.43 (1.44)	< 0.001
Diabetes mellitus, n (%)						
Yes (n=204)	44 (21.6)	9 (4.4)	31 (15.2)	46 (22.5)	74 (36.3)	< 0.001
No (n=853)	295 (34.6)	75 (8.8)	114 (13.4)	188 (22.0)	181 (21.2)	
BMI, mean (SD)	27.0 (4.7)	27.6 (5.9)	27.5 (4.9)	27.6 (4.4)	27.5 (4.9)	0.365
Periodontal clinical parameters, mean (SD)						
Missing Teeth (n)	6.0 (5.6)	9.0 (7.6)	9.4 (8.0)	10.6 (7.0)	11.7 (6.4)	< 0.001
Mean PPD (mm)	1.46 (0.27)	1.71 (0.31)	1.93 (0.65)	1.94 (0.57)	2.65 (0.93)	< 0.001
PPD ≥ 3 mm (%)	5.7 (6.6)	13.0 (10.8)	21.2 (19.7)	22.0 (18.6)	42.2 (25.3)	< 0.001
PPD ≥ 4 mm (%)	0.3 (0.9)	1.7 (2.9)	6.1 (11.9)	7.0 (10.7))	22.4 (21.3)	< 0.001
PPD ≥ 5 mm (%)	0.1 (0.3)	0.2 (0.7)	3.1 (9.9)	3.9 (7.9)	16.6 (18.7)	< 0.001
PPD ≥ 6 mm (%)	0.0 (0.1)	0.0 (0.0)	0.7 (5.8)	0.9 (2.9)	5.5 (8.5)	< 0.001
PPD ≥ 7 mm (%)	0.0 (0.0)	0.0 (0.1)	0.4 (3.1)	0.3 (1.9)	2.8 (5.6)	< 0.001
Mean CAL (mm)	1.66 (0.32)	1.96 (0.38)	2.55 (1.24)	2.91 (1.07)	4.30 (1.54)	< 0.001
CAL ≥ 3 mm (%)	13.4 (10.8)	22.5 (15.0)	40.3 (23.8)	50.3 (22.3)	71.6 (22.1)	< 0.001
CAL ≥ 4 mm (%)	3.2 (4.4)	6.4 (7.3)	20.3 (21.8)	30.1 (22.7)	54.8 (26.0)	< 0.001
CAL ≥ 5 mm (%)	0.7 (1.8)	1.2 (2.7)	10.4 (19.1)	16.9 (19.5)	41.1 (26.3)	< 0.001
CAL ≥ 6 mm (%)	0.2 (0.9)	0.4 (1.5)	3.9 (17.7)	8.3 (14.5)	28.0 (23.4)	< 0.001
CAL ≥ 7 mm (%)	0.1 (0.6)	0.2 (0.8)	2.3 (13.2)	3.6 (11.7)	17.8 (18.9)	< 0.001
Mean Rec (mm)	0.21 (0.26)	0.25 (0.33)	0.65 (0.98)	0.98 (0.94)	1.65 (1.24)	< 0.001
PISA (mm^2)	4.62 (9.79)	43.68 (44.06)	36.81 (52.49)	46.38 (79.33)	100.26 (193.59)	< 0.001
PESA (mm^2)	177.80 (69.56)	177.24 (101.46)	195.58 (118.87)	195.90 (130.65)	253.11 (216.88)	0.001
PI (%)	9.5 (18.3)	23.5 (27.2)	24.0 (30.5)	27.5 (31.5)	37.3 (35.1)	< 0.001
BoP (%)	1.9 (2.8)	20.5 (11.4)	15.0 (19.6)	16.2 (19.5)	28.5 (26.8)	< 0.001

[#]Chi-square test for categorical variables, Kruskal-Wallis test for continuous variables

BMI - Body Mass Index; BoP - Bleeding on Probing; CAL - Clinical Attachment Level; DBP - Diastolic Blood Pressure; PESA - Periodontal Epithelial Surface Area; PI – Plaque Index; PPD - Periodontal Pocket Depth; Rec - gingival recession; SBP - Systolic Blood Pressure; SD – Standard Deviation.

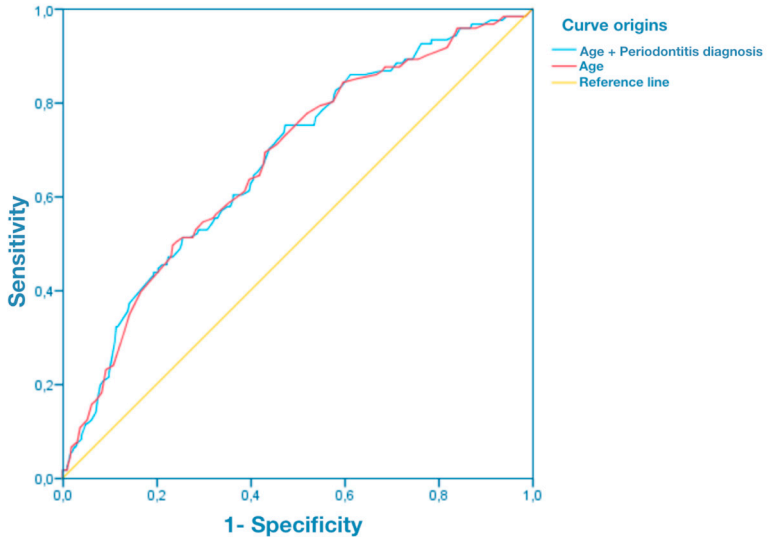

Figure S1. ROC Analysis using periodontal diagnosis.

Model	AUC (95% CI)	SE	*p*
Age + Periodontitis Diagnosis	0.674 (0.619-0.729)	0.028	< 0.001
Age	0.672 (0.617-0.728)	0.028	< 0.001

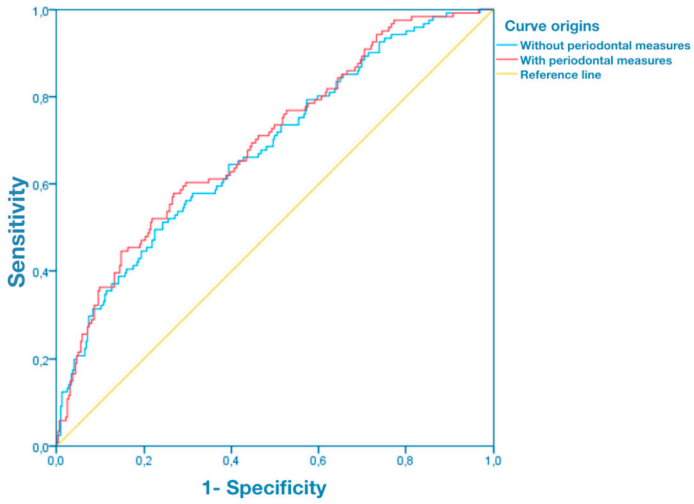

Figure S2. ROC Analysis using periodontal measures.

Model	AUC (95% CI)	SE	*p*
Without periodontal measures	0.681 (0.626-0.737)	0.028	< 0.001
With periodontal measures	0.691 (0.642-0.752)	0.028	< 0.001

STROBE Statement—Checklist of items that should be included in reports of ***cohort studies***

	Item No	Recommendation	Page No
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract (*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	1
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	1-2
Objectives	3	State specific objectives, including any prespecified hypotheses	2
Methods			
Study design	4	Present key elements of study design early in the paper	2
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	2
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up (*b*) For matched studies, give matching criteria and number of exposed and unexposed	2
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	2-3
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	2-3
Bias	9	Describe any efforts to address potential sources of bias	NA
Study size	10	Explain how the study size was arrived at	2
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	2-3
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding (*b*) Describe any methods used to examine subgroups and interactions (*c*) Explain how missing data were addressed (*d*) If applicable, explain how loss to follow-up was addressed (*e*) Describe any sensitivity analyses	3-4
Results			

Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed (b) Give reasons for non-participation at each stage (c) Consider use of a flow diagram	4
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders (b) Indicate number of participants with missing data for each variable of interest (c) Summarise follow-up time (eg, average and total amount)	4
Outcome data	15*	Report numbers of outcome events or summary measures over time	4-9

Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included (*b*) Report category boundaries when continuous variables were categorized (*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	4-9
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	9
Discussion			
Key results	18	Summarise key results with reference to study objectives	10
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	10-11
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	10-11
Generalisability	21	Discuss the generalisability (external validity) of the study results	10-11
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	11

*Give information separately for exposed and unexposed groups. **Note:** An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at http://www.strobe-statement.org.