**ESM Table 1.** Characteristics of participants included and excluded from this study: the EURODIAB Prospective Complications Study of people with type 1 diabetes.

|                                | Included       | Excluded      | P       |
|--------------------------------|----------------|---------------|---------|
| **n=2313**                     | 937            |               |         |
| **Age (years)**                | 32 ± 9         | 34 ± 11       | <0.0001 |
| Men                            | 51 (1190)      | 51 (478)      | 0.8     |
| **Age at diabetes diagnosis (years)** | 18± 8         | 18± 8         | 0.06    |
| **Diabetes duration (years)**  | 14 ± 9         | 16± 10        | <0.0001 |

**Cardiovascular health variables**

|                                | Included       | Excluded      | P       |
|--------------------------------|----------------|---------------|---------|
| never smokers                  | 51 (1182)      | 47 (428)      | 0.05    |
| **BMI (Kg/m²)**                | 23.4± 2.8      | 23.6 ± 3.2    | 0.29    |
| **Physical activity (min/week)** |               |               |         |
| Moderate                       | 330 ± 612      | 379± 636      | 0.04    |
| Vigorous                       | 138 ± 402      | 192± 480      | 0.004   |

**Dietary criteria**

|                                | Included       | Excluded      | P       |
|--------------------------------|----------------|---------------|---------|
| Fibre (g/day)                  | 19.0 ± 7.5     | 17.0 ± 6.6    | <0.0001 |
| Protein (% of Energy)          | 17.6 ± 3.5     | 17.5 ± 3.4    | 0.39    |
| Carbohydrates (% of Energy)    | 42.7 ± 7.1     | 41.8 ± 7.7    | 0.0034  |
| Saturated fatty acids (% of Energy) | 13.7 ± 3.4   | 14.5 ± 3.5    | <0.0001 |
| Total fat (% of Energy)        | 37.5 ± 7.1     | 38.9 ± 7.5    | <0.0001 |
| **Total cholesterol/HDL-cholesterol ratio** | 3.8 ± 1.5     | 4.3 ± 2.1     | <0.0001 |

**Blood pressure**

|                                | Included       | Excluded      | P       |
|--------------------------------|----------------|---------------|---------|
| Systolic BP (mmHg)             | 120 ± 16       | 124 ± 20      | <0.0001 |
| Diastolic BP (mmHg)            | 75 ± 11        | 77 ± 12       | <0.0001 |

**HbA1c**

|                                | Included       | Excluded      | P       |
|--------------------------------|----------------|---------------|---------|
| mmol/mol                       | 67 ± 21        | 70 ± 21       | 0.0003  |
| (%)                            | 8.3± 1.9       | 8.6 ± 1.9     |         |

**Other co-variables**

|                                | Included       | Excluded      | P       |
|--------------------------------|----------------|---------------|---------|
| Retinopathy                    | 44.6 (853)     | 51.0 (291)    | 0.0012  |
| Nephropathy*                   | 28.6 (633)     | 35.8 (302)    | <0.0001 |
| Neuropathy                     | 31.5 (715)     | 47.8 (434)    | <0.0001 |

Data are expressed as mean ± SD or % (n)

*Nephropathy regrouped micro and macro albuminuria.
**ESM Table 2.** Hazard Ratios [95% CI] of incident cardiovascular events for the most favourable cardiovascular health metrics vs less favourable, adjusted for microvascular complications: the EURODIAB Prospective Complications Study.

| Favourable cardiovascular health metrics | Model 1           | Model 2           | Model 3           |
|-----------------------------------------|-------------------|-------------------|-------------------|
| Not current smokers                     | 0.91 [0.65-1.27]  | 0.95 [0.68-1.33]  | 0.92 [0.66-1.29]  |
| BMI                                     | 1.01 [0.71-1.43]  | 0.90 [0.63-1.28]  | 0.96 [0.67-1.36]  |
| Physical activity                       | 0.80 [0.58-1.10]  | 0.75 [0.55-1.04]  | 0.79 [0.57-1.09]  |
| Diet                                    | 0.80 [0.55-1.16]  | 0.81 [0.55-1.18]  | 0.78 [0.53-1.14]  |
| Total cholesterol/HDL-c ratio           | 0.93 [0.65-1.34]  | 0.97 [0.67-1.39]  | 0.92 [0.64-1.32]  |
| Blood pressure                          | 0.63 [0.38-1.04]  | 0.65 [0.40-1.07]  | 0.58 [0.35-0.95]  |
| HbA1c                                   | 0.68 [0.47-0.99]  | 0.71 [0.49-1.03]  | 0.68 [0.47-0.98]  |

*Model 1 adjusted for age at diabetes diagnosis, sex, the other cardiovascular health metrics, and retinopathy*

*Model 2 adjusted for age at diabetes diagnosis, sex, the other cardiovascular health metrics, and nephropathy*

*Model 3 adjusted for age at diabetes diagnosis, sex, the other cardiovascular health metrics, and neuropathy*
**ESM Table 3.** Hazard Ratios [95% CI] of incident cardiovascular events by number of favourable cardiovascular health metrics, adjusted for microvascular complications: the EURODIAB Prospective Complications Study.

| Number of favourable cardiovascular health metrics | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|----------------------------------------------------|---------|---------|---------|---------|---------|
| Zero                                               | ref     | ref     | ref     | ref     | ref     |
| One                                                | 0.84 [0.42-1.70] | 0.80 [0.41-1.61] | 0.89 [0.44-1.80] | 0.76 [0.37-1.54] | 0.81 [0.40-1.64] |
| Two                                                | 0.70 [0.36-1.35] | 0.67 [0.34-1.30] | 0.76 [0.39-1.49] | 0.69 [0.35-1.34] | 0.72 [0.37-1.39] |
| Three                                               | 0.51 [0.25-1.02] | 0.49 [0.24-1.00] | 0.60 [0.29-1.21] | 0.55 [0.27-1.12] | 0.56 [0.27-1.13] |
| Four or more                                        | 0.38 [0.19-0.78] | 0.37 [0.18-0.76] | 0.50 [0.24-1.03] | 0.44 [0.21-0.91] | 0.43 [0.21-0.89] |

*Model 1 Unadjusted*
*Model 2 adjusted for age at diabetes diagnosis and sex*
*Model 3 adjusted for age at diabetes diagnosis, sex and retinopathy*
*Model 4 adjusted for age at diabetes diagnosis, sex and nephropathy*
*Model 5 adjusted for age at diabetes diagnosis, sex and neuropathy*
**ESM Table 4.** Prevalence of the favourable cardiovascular metrics in EURODIAB; prevalence of the ideal cardiovascular health metrics in the prospective Pittsburgh Epidemiology of Diabetes Complications (EDC) study as defined in the Devaraj et al publication and the prevalence of ideal cardiovascular health metrics in EURODIAB as defined in the Devaraj et al publication.

| Cardiovascular health metrics | EURODIAB | EDC study | EURODIAB using Devaraj et al. publication definitions |
|-------------------------------|----------|-----------|------------------------------------------------------|
| **Smoking**                   | Not current smokers 68.9% | Never smokers 58.2% | Never smokers 51.2% |
| **BMI**                       | <22.0 Kg/m² 33.3% | <25.0 Kg/m² 64.6% | <25.0 Kg/m² 73.1% |
| **Physical activity**         | Moderate > 250 min/week 49.7% | moderate+≥150 min per week 39.4% | vigorous≥150 min 24.5% |
|                              | or vigorous > 60 min/week | sport and leisure activity | |
| **Healthy diet**              | 3-4-5 favourable diet tertiles 26.1% | 3 components 1.2% | 2 components* 2.0% |
| **Normal lipids**             | (Total cholesterol / HDL-cholesterol) ratio < 3.09 33.3% | Total cholesterol<5.18mmol/l 64.4% | Total cholesterol<5.18mmol/l 48.9% |
| **Low SBP/DBP**               | SBP < 112 mmHg and DBP < 70 mmHg 18.6% | SBP<120 mmHg and DBP < 80 mmHg 64.4% | SBP<120 mmHg and DBP < 80 mmHg 45.8% |
| **Normal HbA1c**              | < 57 mmol/mol (< 7.4 %) 34.1% | <53 mmol/mol (<7.0%) 7.4% | <53 mmol/mol (<7.0%) 24.5% |

*Fibre: women: fibre > 25g/day, men: fibre >38g/day
Saturated fat < 10% Energy
We did not use sodium intake criteria
**ESM Table 5.** Hazard Ratios [95% CI] of incident cardiovascular events for the ideal cardiovascular health metrics as defined by Devaraj et al. on imputed data: the EURODIAB Prospective Complications Study.

| Cardiovascular health metrics | Model 1       | Model 2       | Model 3       | Model 4       |
|-------------------------------|---------------|---------------|---------------|---------------|
| Never smokers                 | 0.87 [0.64, 1.19] | 0.91 [0.66, 1.24] | 0.96 [0.70, 1.31] | 0.93 [0.68, 1.29] |
| BMI                           | 0.71 [0.51, 0.98] | 0.73 [0.52, 1.02] | 0.86 [0.61, 1.20] | 0.86 [0.61, 1.21] |
| Physical activity             | 0.64 [0.43, 0.96] | 0.69 [0.46, 1.05] | 0.78 [0.49, 1.22] | 0.68 [0.45, 1.04] |
| Diet                          | 0.72 [0.18, 2.92] | 0.67 [0.16, 2.73] | 0.62 [1.15, 2.54] | 0.60 [0.14, 2.46] |
| Total cholesterol             | 0.76 [0.56, 1.04] | 0.81 [0.59, 1.11] | 1.03 [0.74, 1.44] | 1.06 [0.76, 1.47] |
| Blood pressure                | 0.48 [0.34, 0.67] | 0.47 [0.33, 0.65] | 0.49 [0.34, 0.69] | 0.50 [0.35, 0.71] |
| HbA1c                         | 0.53 [0.34, 0.83] | 0.51 [0.33, 0.79] | 0.54 [0.34, 0.84] | 0.53 [0.34, 0.83] |

*Model 1: Unadjusted model*

*Model 2: adjusted for age at diabetes diagnosis and sex*

*Model 3: Model 2 + the other cardiovascular health metrics. For example, to estimate the Hazard ratio of CVD for never smokers, Model 3 was adjusted for age at diabetes diagnosis, sex, BMI, PA, diet, Total cholesterol, BP and HbA1c*

*Model 4: original EURODIAB data, a complete case analysis n=2313, adjusted as for Model 3*
ESM Fig. 1–The flowchart of the selection of participants for the study

EURODIAB
N=3250

-437 participants of centres that withdrew from the study
-18 without follow-up information
-8 duplicate or with wrong type 1 diabetes diagnosis

2787 Followed participants

-239 with prevalent CVD
-14 with missing prevalent CVD

2534 participants without prevalent CVD

221 with missing incident CVD

2313 participants included in the study
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