



Correction to: Higher thyroid hormone levels and cancer

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Table 1 is incorrect in the original article, the correct Table 1 is shown

Cancer site	Authors	Year	Correlation	
Cancer in general	Hellevik et al. [6]	2009	Low TSH (< 0.50 mU/L)—increased cancer risk	Adjusted HR 1.34, 95% CI 1.06–1.69
	Khan et al. [5]	2016	Higher FT4—positive correlation with cancer risk	Adjusted HR 1.42, 95% CI 1.12–1.79; adjusted HR ¹ 1.13, 95% CI 0.99–1.28
	Yeh et al. [19]	2013	Hyperthyroidism—positive correlation with cancer risk	Adjusted HR: 1.20, 95% CI 1.01–1.43, $p < 0.05$
	Vadiveloo et al. [16]	2011	Subclinical hyperthyroidism—no correlation with cancer risk	Adjusted HR 0.98, 95% CI 0.66–1.46
	Brandt et al. [20]	2013	Toxic nodular goiter—linked with increased cancer mortality	Adjusted HR 1.36, 95% CI 1.06–1.75, $p < 0.05$
	Ittermann et al. [17]	2010	Low serum TSH levels—no correlation with cancer mortality	Adjusted HR ² 1.07, 95% CI 0.57–2.00; Adjusted HR ³ 0.81, 95% CI 0.11–5.85
	Zhang et al. [18]	2014	FT3—negative correlation with cancer mortality	Adjusted HR 0.62, 95% CI 0.45–0.85, $p = 0.001$
	Breast cancer	Khan et al. [5]	2016	Higher FT4 levels—positive correlation with breast cancer risk
Tosovic et al. [21]		2012	FT4 levels—positive correlation with breast cancer risk	Adjusted OR ⁴ 1.40, 95% CI 1.10–1.77
Søgaard et al. [10]		2016	Hyperthyroidism—positive correlation with breast cancer risk	SIR 1.11, 95% CI 1.07–1.16; SIR ⁵ 1.13, 95% CI 1.08–1.19
Tosovic et al. [22]		2010	T3—positive correlation with breast cancer risk	Adjusted RR ⁶ 1.87, 95% CI 1.12–3.14
Kim et al. [23]		2019	Higher FT4 levels—positive correlation with breast cancer risk Higher reference range TSH levels—negative correlation with breast cancer risk	Adjusted HR 1.98, 95% CI 1.02–3.83 Adjusted HR ⁷ 0.68, 95% CI 0.55–0.84
Ditsch et al. [24]		2010	FT3 and FT4 levels—highest in breast cancer patients compared to healthy controls and patients with benign breast tumors	FT3 and FT4: $p^8 < 0.001$ FT3: $p = 0.021$; FT4: $p^9 = 0.017$
Tosovic et al. [8]		2014	Third T3 tertile—positive correlation with tumors larger than 20 mm	Adjusted HR 3.17, 95% CI 1.20–8.36
			Third T3 tertile—positive correlation with lymph node metastases	Adjusted HR 4.53, 95% CI 1.60–12.83
			Third T3 tertile—positive correlation with negative estrogen receptor status	Adjusted HR 3.52, 95% CI 1.32–9.41
			Third T3 tertile—positive correlation with negative progesterone receptor status	Adjusted HR 3.52, 95% CI 1.42–8.75
Journey et al. [9]	2017	Hyperthyroidism in 60-plus-year-old women—positive correlation with breast cancer mortality	Adjusted HR 2.04, CI 1.16–3.60	
Prostate cancer	Hellevik et al. [6]	2009	Low TSH level (< 0.50 mU/L)—increased prostate cancer risk	Adjusted HR 1.97, 95% CI 1.04–3.76; Adjusted HR ¹⁰ 2.60 (1.36–4.99)
	Chan et al. [25]	2017	Higher FT4 levels—positive correlation with prostate cancer risk	Adjusted HR 1.11 per increase of 1 pmol/L, 95% CI 1.03–1.19, $p = 0.009$
			Higher TSH levels—Negative correlation with prostate cancer risk	Adjusted HR ¹¹ 0.70, 95% CI 0.55–0.90, $p = 0.005$
	Lehrer et al. [26]	2002	T3 levels—higher in prostate cancer patients	$p = 0.048$
	Lehrer et al. [27]	2001	T3 levels—positive correlation with prostate cancer risk category	$p = 0.011$
	Ovčariček et al. [28]	2020	T3 levels—positive correlation with less differentiated prostate cancer (higher in grade groups 3–5, compared to 1–2), higher pT stage, and larger prostate tumor involvement	$p = 0.047$, $p = 0.047$, $p = 0.002$, respectively
Ovarian cancer	Ness et al. [29]	2000	Hyperthyroidism—positive correlation with ovarian cancer risk	OR 1.8
	Minlikeeva et al. [30]	2017	Hyperthyroidism detected within the 5 years of ovarian cancer diagnosis—positive correlation with mortality	Adjusted HR 1.94, 95% CI 1.19–3.18

Table 1 (continued)

Cancer site	Authors	Year	Correlation	
Gastroesophageal cancer	Turkyilmaz et al. [31]	2010	Incidence of hyperthyroidism—higher in the esophageal cancer patients	$p < 0.001$
	Puhr et al. [32]	2020	Higher FT4 levels—shorter survival of gastroesophageal cancer patients	HR 2.20, $p = 0.041$
Pancreatic cancer	Ko et al. [33]	2007	Hyperthyroidism—positive correlation with pancreatic cancer risk	OR = 2.1, 95% CI 1.0–4.2
Colorectal cancer	Boursi et al. [34]	2015	Hyperthyroidism—positive correlation with colorectal cancer risk	Adjusted OR 1.21, 95% CI 1.08–1.36, $p = 0.001$
	L'Heureux et al. [35]	2019	Hyperthyroidism—negative correlation with colon cancer risk	Adjusted OR 0.74; 95% CI 0.64–0.85, $p < 0.001$
Lung cancer	Hellevik et al. [6]	2009	Low TSH (< 0.50 mU/L)—increased lung cancer risk	Adjusted HR 2.34, 95% CI 1.24–4.40; Adjusted HR ¹⁰ 2.91, 95% CI 1.49–5.70
	Khan et al. [5]	2016	Higher FT4—positive correlation with lung cancer risk	Adjusted HR 2.33, 95% CI 1.39–3.92; Adjusted HR ¹ 1.79, 95% CI 1.23–2.59
Thyroid cancer	Yeh et al. [19]	2013	Hyperthyroidism—positive correlation with thyroid cancer risk	Adjusted HR 6.803, 95% CI 3.58–12.91, $p < 0.05$
	Diessl et al. [36]	2012	T3 levels—negative correlation with the survival of advanced DTC patients	$p^{12} = 0.001$
Acute leukemia	Ghalaut et al. [37]	2012	FT3, FT4, T3, and T4 levels are higher, while TSH is lower in acute leukemia patients	$p < 0.05$
Myelodysplastic syndrome	Dalamaga et al. [7]	2008	FT3 and FT4 levels are higher, while TSH levels were lower in patients with myelodysplastic syndrome	$p < 0.05$

HR, hazard ratio; SIR, standardized incidence ratios; OR, odds ratio

¹ After the exclusion of thyroid-affecting medicines; the highest tertile, compared to the lowest

² In subclinical hyperthyroidism

³ In overt hyperthyroidism

⁴ FT4 levels above vs. those below the median

⁵ Beyond 5 years of follow-up

⁶ The adjusted RR for the women in the fourth T3 quartile, as compared to the first

⁷ The highest TSH tertile in the reference values, compared to the lowest tertile

⁸ Breast cancer patients compared to healthy controls

⁹ Breast cancer patients compared to patients with benign breast tumors

¹⁰ After the exclusion of the first 2 years of follow-up

¹¹ Per increase in TSH of 1 IU/L

¹² FT3 levels below vs. above 7.0 pmol/L

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