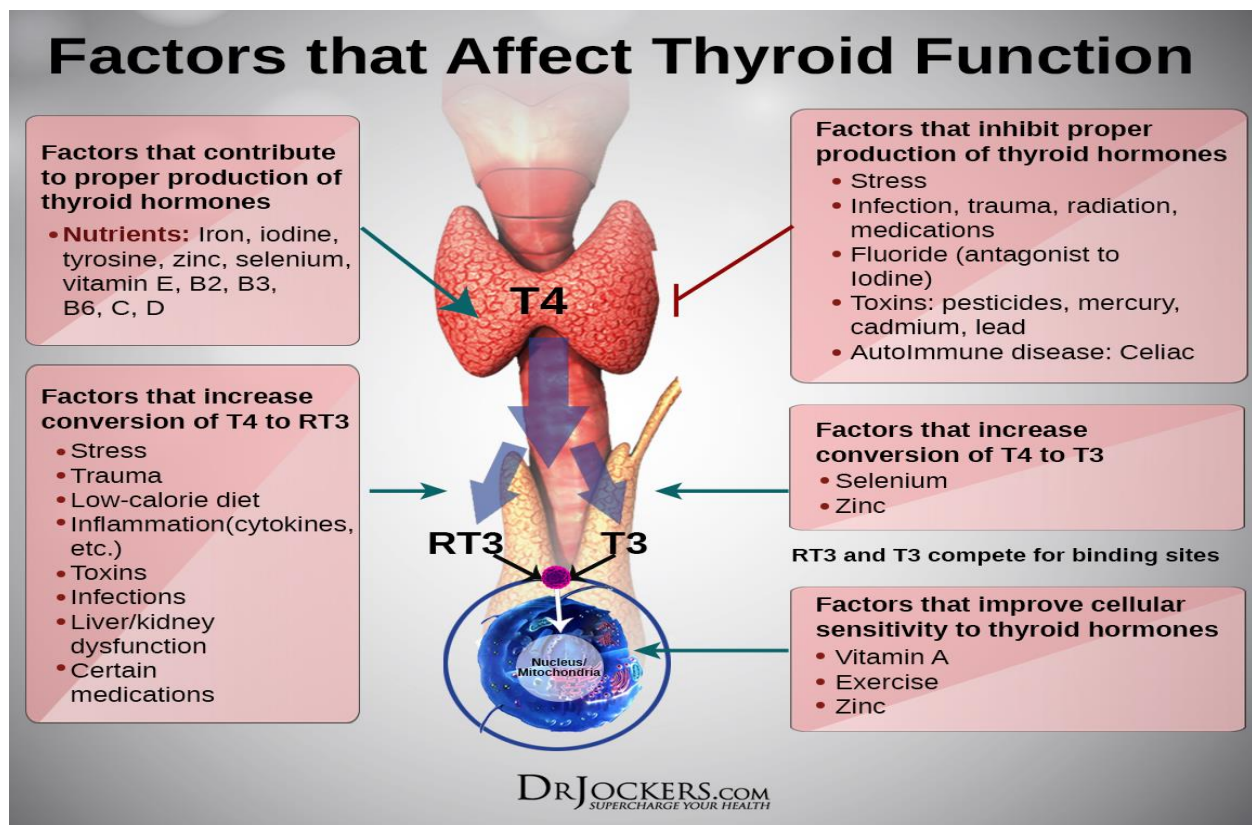


Take Home Tips for a Healthy Thyroid

- Ask your family physician to order a full thyroid panel
- Consider food sensitivity testing or an elimination diet. (Gluten, dairy, and soy are often common triggers.)
 - Minimize sugar intake
- Autoimmune paleo diet has been associated with reduced thyroid antibodies
 - Avoid extreme caloric restriction or yo-yo dieting
- Make sure you are getting at least 8-9 hours of sleep a night
 - Move your body daily (Interval training ideal)
 - Drink plenty of clean, filtered water
 - Minimize daily stressors
 - Be aware of environmental toxins (EWG app)
 - Optimize Vitamin D levels



Lab Ranges for a Healthy Thyroid
(Not inclusive)

TEST	STANDARD RANGE	OPTIMAL RANGES
TSH	0.27-6.0 uIU/ml	1-2 uIU/ml
TOTAL T4	4.5-11.7 ug/dL	6.0-12.0 ug/dL
FREE T4	0.8-1.8 ng/dL	1.0-1.5 ng/dL
TOTAL T3	80-180 ng/dL	100-180 ng/dL
FREE T3	2.0-4.4 pg/ml	3.5-5.0 pg/ml
REVERSE T3	11-21 ng/dL	11-18 ng/dL (<15 Ideal)
THYROID PEROXIDASE ANTIBODIES (TPOAb)	<35 IU/ml	<4 IU/ml OR NEGATIVE
THYROGLOBULIN ANTIBODIES (TgAb)	<35 IU/ml	<4 IU/ml OR NEGATIVE
THYROGLOBULIN (TG)	<55.0 ng/dL	1.40-29.2 ng/mL (Men) 1.50-38.5 ng/mL (Women)
CORTISOL	3.1-22.4 ug/dL	10-15 ug/dL morning; 6-10 ug/dL (afternoon)
DHEA-S	35.0-430.0 ug/dL	Top half of normal range 200-380 ug/dL
FASTING BLOOD GLOCUSE	70-100 mg/dL	70-86 mg/dL
HGA1C	<5.7%	<5.3%
FERRITIN	15.0-150 ng/mL	70-90 ng/mL
VITAMIN D	31-100 ng/mL	75-100 ng/mL

Thyroid Hormone Replacement

- ▶ Synthetic T4
 - ▶ Levothyroxine (generic), Tirosint, Synthroid, Levotheroid, Levoxyl, Thyro-Tabs, Unithroid
 - ▶ May contain fillers (lactose, maize/corn starch, gluten)
 - ▶ Those who have difficulty with conversion may not respond well
 - ▶ Tirosint-hypoallergenic option
 - ▶ Studies inconclusive as to whether T4 alone are sufficient
- ▶ Synthetic T3
 - ▶ Liothyronine (generic), Cytomel
 - ▶ Not recommended as sole therapy
 - ▶ Can be added on to T4 medications
 - ▶ Active hormone
 - ▶ Short-acting
 - ▶ History of inappropriate use in the past (given for weight loss)
 - ▶ Risk for heart palpitations/increased risk for osteoporosis
- ▶ Natural Desiccated T3/T4
 - ▶ Armour Thyroid, Nature-Throid, WP Thyroid, NP Thyroid
 - ▶ Derived from the thyroid glands of pigs
 - ▶ Bio-identical to the hormones produced by our thyroids
 - ▶ Contain some T1 and T2, may have some undiscovered biological functions
 - ▶ Can now ensure accurate and consistent dose (30 years ago wasn't the case)
 - ▶ Some with ethical objections
 - ▶ May perpetuate autoimmune attack for some patients
 - ▶ Immediate release
- ▶ Compounded T3/T4
 - ▶ Created by compounding pharmacists (opt for immediate release formulations)
 - ▶ Those with certain gene mutations may benefit more from combo
 - ▶ Compound may be a good option for those with sensitivities
 - ▶ Need to be prepared by specially trained compound pharmacist
 - ▶ Can be more expensive
 - ▶ May require refrigeration
 - ▶ Sustained release can be poorly absorbed if leaky gut
 - ▶ May have to travel to compound pharmacist

Each grain contains 38 mcg of T4 and 9 mcg of T3. Due to the higher bioactivity of natural thyroid, physicians may choose a slightly lower dosage to achieve similar results for patients converting from synthetic thyroid.

Nature-Throid® (Thyroid USP)	WPT Thyroid® Wolfschlois® Para (Thyroid USP)	Armour® (Thyroid USP)	Synthroid® Levoxy® (Levothyroxine Sodium)	Tirosint® (Levothyroxine Sodium)
				13 mcg (0.013 mg)
1/4 grain (16.25 mg)	1/4 grain (16.25 mg)	1/4 grain (15 mg)	25 mcg (0.025 mg)	25 mcg (0.025 mg)
1/2 grain (32.5 mg)	1/2 grain (32.5 mg)	1/2 grain (30 mg)	50 mcg (0.05 mg)	50 mcg (0.05 mg)
3/4 grain (48.75 mg)	3/4 grain (48.75 mg)		75 mcg (0.075 mg)	75 mcg (0.075 mg)
			88 mcg (0.088 mg)	88 mcg (0.088 mg)
1 grain (65 mg)	1 grain (65 mg)	1 grain (60 mg)	100 mcg (0.1 mg)	100 mcg (0.1 mg)
			112 mcg (0.112 mg)	112 mcg (0.112 mg)
1.25 grain (81.25 mg)	1.25 grain (81.25 mg)		125 mcg (0.125 mg)	125 mcg (0.125 mg)
			137 mcg (0.137 mg)	137 mcg (0.137 mg)
1.5 grain (97.5 mg)	1.5 grain (97.5 mg)	1.5 grain (90 mg)	150 mcg (0.150 mg)	150 mcg (0.150 mg)
1.75 grain (113.75 mg)	1.75 grain (113.75 mg)		175 mcg (0.175 mg)	
2 grain (130 mg)	2 grain (130 mg)	2 grain (120 mg)	200 mcg (0.2 mg)	
2.25 grain (146.25 mg)				
2.5 grain (162.5 mg)				
3 grain (195 mg)		3 grain (180 mg)	300 mcg (0.3 mg)*	
4 grain (260 mg)		4 grain (240 mg)		
5 grain (325 mg)		5 grain (300 mg)		

Armour®, LLC is a registered trademark of Actavis, LLC.
Levoxy® is a registered trademark of Pfizer, Inc.

Tirosint® is a registered trademark of Akrimax Pharmaceuticals, LLC.
Synthroid® is a registered trademark of AbbVie, Inc.

*Levoxy® is not available in 300 mcg.

Compound Pharmacies

Pharmacy	Pharmacist	Contact	Address			
Schwieterman Pharmacy	Ranae Gaerke, RPh	419-628-2305	324 N. Main St	Minister	OH	45865
Hill's Compounding Pharmacy	Jeffery Hill	1-800-944-8211	931 State Route 28	Milford	OH	45150
Medicine Center	Brad White	330-339-4466	551 West High Ave	New Philideplhia	OH	44663
Medicine Shoppe #1065	Daniel G Karant	330-825-7676	3300 Greenwich Road Suite 14	Norton	OH	44203-5714
Lee Silsby Compounding Pharmacy			3216 Silsby Road	Cleveland Heights	OH	44118