Pregnancy and Post-Partum Smoking Cessation Including Breastfeeding and Lactation

Center For a Tobacco-Free Finger Lakes

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Risks of Nicotine Use in Pregnancy and Lactation

Smoking and Pregnancy

- Approximately 10% of pregnant women smoke in the U.S.[1]
- According to CDC, 5.6% (Range 3.3 – 7.8) of pregnant women in New York State reported smoking in 2021.[2] Nationally, the 2021 NSDUH found 10.1% of pregnant women reported past month cigarette use.
- The AHA reports 2.2 – 2.5% of adults use e-cigarettes[3]
- 2.2 – 7.0% of pregnant women use e-cigarettes, though likely underestimated[4]
- Women most likely to smoke during pregnancy are 20-24 years old, high school education or less, American Indian or Alaskan Native.[3]
- Benefits of quitting smoking are highest if achieved before 15 weeks gestation[5]
- Half of women that quit during pregnancy will relapse within 2 months of delivery[5]

Nicotine and Breastfeeding

- The Academy of Breastfeeding Medicine reports 3.6% of breastfeeding women use tobacco products, while 2.6% use smokeless tobacco product[6]
- Women who use tobacco are less likely to breastfeed[6]
- Smoking by BF mothers is associated with reduced milk volume (reduced prolactin), and earlier weaning[7]
- Tobacco smoking decreases lipids, protein, and caloric content and decreased antioxidant properties of milk [8]
- Newborns of smoking women have delayed initiation of sucking reflex, and lower sucking pressure during breastfeeding [9]

Nursing Mothers and Smoking

- Simultaneous maternal smoking (exposure to second hand smoke) and breastfeeding increases nicotine absorption by the infant [10]
- Nicotine passes freely into human milk and is orally absorbed as nicotine [10]
- When consumed enterally, nicotine is metabolized by the liver to cotinine [10]
- Nicotine elimination is 3-4 times longer in infants than adults; half-life is 5-10 hours (potentially longer with e-cigarettes)[11]
- Nicotine exposure in infants can cause appetite suppression, tachycardia, impaired sleep[11]

General Risks of Smoking [5, 12]

Adverse Outcome	Chemical Cause	Reference
Development of chemical dependence/addiction	Nicotine	Wittenberg 2020
Alteration of glucose homeostasis, increased risk of diabetes mellitus	Nicotine	Kondo 2019; Maddatu 2017
Upregulation of inflammatory cytokines	General cigarette smoke	Kondo 2019
Progression of tumor growth, metastasis	General cigarette smoke	Walser 2008
Development of Chronic Obstructive Pulmonary Disease	General cigarette smoke	Reynolds 2006
Endothelial dysfunction	General cigarette smoke	Kondo 2019
Increased risk of hypertension	General cigarette smoke	Kondo 2019
Increased risk of cardiovascular disease	General cigarette smoke	Kondo 2019
Increased risk of lung cancer	General cigarette smoke	Walser 2008, Warren 2013

General Risks of E-cigarette Use (Vaping) [5, 12]

Adverse Outcome	Chemical Cause	Reference
Development of a chemical dependence/physical addiction	Nicotine	Marques 2021, Dinardo 2019
Increased incidence of mental illness	Nicotine	Becker 2020
Altered cardiovascular functioning including increased blood pressure, heart rate, contractility	Nicotine	Merecz-Sadowska 2020
Altered glucose homeostasis, increased risk of diabetes mellitus	Nicotine	Maddatu 2017, Kondo 2019
Immunosuppression and altered immune function	Nicotine	Gotts 2019
Cardiovascular inflammation	Carbonyl compounds, ultrafine particles	Benowitz 2018, Glantz 2018
Endothelial dysfunction	Carbonyl compounds, flavoring compounds	Kennedy 2019
Increased risk of myocardial infarcation	General e-cigarette aerosol	Lippi 2014
Lung epithelial cell inflammation	General e-cigarette aerosol	Muthumalage 2019
Small airway and alveoli injury	Propylene glycol, glycerol, flavoring compounds, ultrafine particles	Carter 2017, Ghosh 2018, Reidel 2018, Viswam 2018, Chaumont 2019
Increased airway resistance	General e-cigarette aerosol	Honeycutt 2022
Increased incidence of asthma	General e-cigarette aerosol	McConnell 2017, Schweitzer 2017
Increased risk of chronic bronchitis	General e-cigarette aerosol	McConnell 2017
E-cigarette or Vaping Use-Associated Lung Injury	Vitamin-E acetate, general e-cigarette aerosol	Crotty 2020, Krishnasamy 2020

Perinatal Risks of Smoking & Nicotine Alternatives[12]

Adverse Outcome	Chemical Cause	Reference
Increased maternal cortisol levels resulting in increased stress	Nicotine, general cigarette smoke	Gould 2020
Ectopic pregnancy		Castles 1999
Increased risk of spontaneous abortion and premature birth	Nicotine, cadmium, lead, general cigarette smoke	Berlin 2010, Caserta 2013, Chelchowska 2013, Rzymski 2015
High maternal levels of oxidative stress biomarker (F2PG2a) and inflammation marker (sICAM)	General cigarette smoke	Perez 2021
Decreased maternal thyroid function	General cigarette smoke	Surgeon General 2014, McDonald 2008
Increased risk of placenta previa	General cigarette smoke	Castles 1999
Increased risk of abruotio placenta	General cigarette smoke	Castles 1999
Increased risk of pre-eclampsia	General cigarette smoke	Castles 1999
Increased risk of fetus developing neurological, developmental, and endocrine disorders	Cadmium, lead, mercury	Caserta 2013
Fetal growth restriction (low birth weight, reduced abdominal circumference, reduced femur length, reduced head circumference	Nicotine, cadmium, lead, general cigarette smoke	Newnham 1990, Orlebeke 1999, Caserta 2013, Abraham 2017, Quelhas 2018
Increased risk of fetal orofacial cleft development	General cigarette smoke	Spinillo 1994,
Preterm, premature rupture of membranes	General cigarette smoke	Spinillo 1994, Castles 1999

Risks after Birth for the Infant/Child [5, 12]

Adverse Outcome	Chemical Cause	Reference
Decreased infant systolic blood pressure	Manganese, general cigarette smoke	Zhang 2021
Infant cotinine levels reflect maternal cotinine levels	Nicotine	Pichini 2000
Increased risk of neonatal apnea	Nicotine	Gunnerbeck 2011
Increased risk of Sudden Infant Death Syndrome (SIDS)	General cigarette smoke	Liebrechts-Akkerman 2011, Moon 2011
Altered autonomic cardiac regulation	Nicotine	Nordenstam 2017
Increased risk of nicotine withdrawal in the neonate	Nicotine	Froisland 2017
Increased risk of infantile colic	General cigarette smoke	Sondergaard 2001
Increased risk of bone fractures	Nicotine	Ayubi 2020, Brand 2020
Increased risk of respiratory infections	General cigarette smoke	Li 2005
Increased risk of asthma	General cigarette smoke	Li 2005
Increased risk of being overweight or obese during childhood, increased risk of type II diabetes mellitus	Nicotine	Holbrook 2016, von Kris 2002
Increased risk of childhood cancers including ALL, non-Hodgkins lymphoma, neuroblastoma	General cigarette smoke	Gould 2020
Increased risk of behavioral problems in childhood: hyperactivity, cognitive impairment, anxiety, sensitivity to nicotine and other stimulants	Nicotine	Holbrook 2016
Increased risk of compromised fertility	Nicotine	Holbrook 2016

Nicotine Clearance

- Nicotine and cotinine are metabolized faster (60% and 140% respectively) by 25 weeks gestation[1]
- Pregnant women may experience an increase in both cravings and withdrawal symptoms when quitting[13]
- Pregnant women may need higher doses of nicotine replacement therapy (NRT) than non pregnant women[14]

Nicotine and the Fetus[15]

- Nicotine crosses the placental barrier with rapid transfer to the fetus
- Peak plasma concentrations in the fetus are reached in 15-30 minutes
- Amniotic fluid concentrations of nicotine are 88% higher than maternal plasma nicotine concentrations
- Fetal circulation concentrations of nicotine are 15% higher than maternal concentrations
- The fetus remains exposed to high concentrations of nicotine even after concentrations in maternal blood have decreased
- Nicotine may be most harmful in the third trimester unlike other substances

Treatment of Nicotine Use in Pregnancy and Lactation

ACOG Screening Recommendations[5]

- Care providers should explicitly inquire about ALL types of tobacco and nicotine products (including vaping, cigarettes, lozenges, patches, dissolvable nicotine, etc.)
- Advise patient of significant perinatal risks associated with tobacco and nicotine use
- Advise cessation of ALL type of tobacco and nicotine products
- Screen for other substance use as this is correlated with continuation of tobacco use in pregnancy

There is a tool available from the NC Quitline that may be used to guide screening – this is compliant with the above guidelines

The USPSTF recommendations are in agreement with the above guidelines

Barriers to Quitting[5]

- Social environments that encourage smoking
- Stress
- Mental health issues
- Interpersonal violence
- Substance use
- Lack of access to smoking cessation services
- Skepticism regarding harm to mother and or fetus
- Acceleration of nicotine metabolism in pregnancy

Predictive Factors for Quitting[5]

- Higher SES
- Higher education level
- No alcohol use
- Primiparity
- Plan to breastfeed
- Perceived adequate prenatal care
- No depression
- Medicaid or Private Insurance coverage
- Living with a partner or married
- Non-smoking partner or family members in the home
- Low stress

Risk Factors for Relapse[5]

- Weight concerns
- Return of triggers such as alcohol and caffeine
- Poor coping strategies
- Not having quit completely during pregnancy
- Having a partner that smokes
- Sleep deprivation
- Stress
- No plan to breast feed

Counseling[5,13]

- Behavioral counseling: Clinical evidence supports counseling can increase rates of smoking cessation
- At least 15 minutes in duration and be delivered by a trained maternity care provider or referral to a hospital or community based quit service
- Inform about adverse effects on mother and fetus
- Inform about withdrawal symptoms and discuss coping strategies
- Instruct on removal of tobacco or nicotine related products
- Advise to avoid or reduce time spent with people and places where smoking is associated

Guidance for Breastfeeding and Smoking[6]

- Despite the known risks of tobacco and nicotine it is still recommended that all women breastfeed their babies if able
- If they continue to use tobacco products, they should smoke as far from baby as possible
- Wash hands and change clothes before touching the baby
- Cut down as much as possible
- Monitor baby's weight gain
- Smoke (or use NRT) immediately after breastfeeding rather than before

Medication-Assisted Treatment in Pregnancy and Lactation:

FDA-Approved Nicotine Replacement Therapies and Cessation Medications

Over the Counter

- Nicotine Patch, Gum, Lozenge

Prescription

- Nicotine Nasal Spray
- Bupropion (Wellbutrin) Not recommended
- Varenicline (Chantix) Not recommended

USPSTF Statement on Pharmacotherapy for Tobacco Cessation During Pregnancy

- It has been suggested that **NRT may be safer than smoking** during pregnancy given that cigarette smoke contains harmful substances in addition to nicotine.
- The USPSTF identified **no studies on bupropion SR or varenicline** pharmacotherapy for tobacco smoking cessation during pregnancy.

In the absence of clear evidence on the balance of benefits and harms of pharmacotherapy in pregnant women, clinicians are encouraged to consider the severity of tobacco dependence in each patient and engage in shared decision-making to determine the best individual treatment course.

Nicotine Replacement Therapy (NRT)

- A 2015 Cochrane Review found NRT in pregnancy increased rates of smoking cessation by approximately 40%[1]
- Pregnant women who quit smoking using dual NRT had similar saliva cotinine concentrations as when smoking, but reported smoking substantially fewer daily cigarettes and showed reductions in exhaled CO concentrations[18]
- Nicotine patch replacement therapy use was associated with a lower risk of prematurity, and small-for-gestational-age compared to smoking[19]
- During lactation[6]:
  - A study found that lactating women using 21 mg patch had similar nicotine and cotinine levels compared to smoking an average of 17 cigarettes per day (ABM).
  - On average, breastfeeding infants ingest 1.9% of the maternal weight adjusted dose of nicotine and 7.8% when cotinine is taken into account.

NRT Guidance

- 1 mg of nicotine is equal to approximately 1 cigarette
- Use the lowest dose that controls withdrawal symptoms and permits abstinence
- Short acting NRT products (e.g., gum, lozenge, nasal spray) that allow intermittent dosing are preferred
  - Long-acting – use once daily, recommend removal at night and replacement in the morning to minimize nicotine delivery in pregnant/lactating women
    - Nicotine patch (available 21 mg, 14 mg, 7 mg)
  - Short-acting/Rescue – use as needed, not to exceed daily value as above
    - Nicotine gum (2 or 4 mg per piece)
    - Nicotine nasal spray (0.5 mg per spray)
    - Nicotine lozenges (come in 2 or 4 mg per piece)
- FDA categorizes short acting NRT such as chewing gum and lozenges as Pregnancy Category C
- Transdermal patches, inhalers, and aerosol nicotine products are Pregnancy Category D

Varenicline in Pregnancy/Lactation: Research

- A study found that the proportion of pregnant women who quit smoking was 24.2% higher in the varenicline-treated group compared to the nicotine patch-treated group [20]
- Another study found a significant reduction in adverse perinatal events including preterm birth, SGA and severe neonatal morbidity[21]
- Additionally, they saw no increased risk of major congenital anomalies associated with first trimester exposure to varenicline. [21]
- NO safety data available for use during breastfeeding [6,17]
- Pharmacokinetics suggest it will readily transfer to human milk & infants should be monitored for seizures and excessive vomiting [6]

Varenicline (Chantix)

Not Recommended in Pregnancy or Lactation

Screening: *Screen for kidney disease and mental illness.*

Mechanism: *Partial agonist of 4β2 nicotinic acetylcholine receptors. Reduces cravings and prevents nicotine reward.*

Dose: *Begin 1-2 weeks before quit date (can begin up to 3 months prior)*

Begin with 0.5mg OD days 1-3, 0.5mg BID days 4-7, then 1mg BID. Take after eating with full glass of water

12 week course

Side Effects: *Nausea, vivid dreams, insomnia, skin reactions, hallucinations, attempted or completed suicide, seizures*

FDA 2015 Warning: *Increases intoxication with alcohol*

Bupropion in Pregnancy/Lactation: Research

- In a prospective matched, controlled observational study of 22 pregnant smokers receiving bupropion, 10 (45%) ceased smoking, as compared to 3 (14%) of 22 controls[22]
- A study found no significant increase in risk of any adverse perinatal event associated with exposure to bupropion[21]
- Another study found Bupropion use was associated with lower risk of prematurity[19]
- Although cumulative data are limited, maternal bupropion doses of up to 300 mg are associated with low levels of detection in breastmilk that are unlikely to cause adverse effects in infants[5]
- Exposure harms for infants are mixed while some found no adverse effects and others found seizure-like events (3 infants 6 months only partially breastfed)[6]
- Randomized Controlled Trial is currently underway[6]

Bupropion SR

Not recommended in Pregnancy or Lactation

Screening: *Screen for seizure risk (epilepsy, head injury, brain surgery), eating disorder, MAOI current or recent, heavy alcohol use, depression or other psychiatric illness*

Mechanism: *A weak inhibitor of dopamine and norepinephrine reuptake, reducing nicotine withdrawal. Metabolized in the liver*

Instructions: *Plan to quit 2nd week after starting. Take with food.*

Dose: *150mg daily for 3 days then increased to BID, 2nd dose in afternoon (After 8 hours). Some patients do not need 2 doses. Combine with NRT for best efficacy.*

Side Effects: *Insomnia, dry mouth, Risk of seizures in susceptible individuals, headache, nausea, agitation, anxiety.*

Bupropion and Varenicline in Pregnancy[6,16,17]

- The US Food and Drug Administration (FDA) lists Wellbutrin and Varenicline under pregnancy category C (fetal toxicity was shown in animal reproduction studies, whereas there are **no adequate and well-controlled studies in pregnant women**)
- A recent systematic review of 18 studies of bupropion and varenicline use in pregnancy did not demonstrate an increased risk of congenital anomalies, low birth weight, or preterm birth
- **Benefits may outweigh risks in some cases**
- **Research is ongoing**

Vaping to Quit Smoking?

- 99% of these products contain nicotine or nicotine salts[5]
- Even if nicotine is not present in the e-liquid, exposure to flavorants and combustion products from the heating mechanism occurs[5]
- These products exhibit many of the same risks as cigarettes, with research still ongoing
- A large observational study found that electronic cigarette use in the third trimester was significantly positively associated with small for gestational age, low birth weight, and preterm delivery [23]
- A study found that rats exposed for one hour per day to electronic cigarette aerosol in gestation and lactation periods had deficits in spatial learning and memory and increased biomarkers of harm in the hippocampus
- Vaping is not recommended in pregnancy or lactation

Transition from OB/GYN to Pediatrics

- Post-partum, mothers stop seeing their obstetrician as frequently and start seeing a pediatrician for well child checks
- This is an opportunity for the pediatrician to step in as a smoking cessation (or continued abstinence) advocate
- Pediatric care providers should advise breastfeeding mothers as well as others in the home to quit smoking
- Parents favor messages that are focused on health outcomes for their child including preventing respiratory illnesses and cancer
- Pediatricians may even prescribe nicotine replacement therapy after proper screening, or refer to the quitline

Risks of Nicotine in Peri- and Postmenopausal Individuals

Nicotine in Peri- and Postmenopausal women

- Smoking among women 45 – 64 years of age has remained common despite rates declining in other age groups – 16.8% report current smoking [26]
- In addition to the general risks previously listed, perimenopausal women have greater increases in the following risks due to reduced estrogen levels and older age [24,25,26]:
  - Cardiovascular risk
  - Osteoporosis and fracture risk
  - Delays in wound healing
  - Cancer risk
  - Skin aging
- Nicotine can exacerbate several menopausal symptoms, including hot flashes, mood swings, sleep disturbances [26]
- Smoking more than 10 cigarettes a day after the age of 25 increases risk of premature menopause, potentially speeding onset by 2 years [26]

Treatment of Nicotine Use in Peri- and Postmenopausal Individuals

Cessation in Peri- and Postmenopausal Individuals

- Estrogen levels may be positively associated with nicotine reward, which may aid in cessation efforts of postmenopausal women, while adding challenge to efforts of perimenopausal women[25]
- No known studies have directly compared premenopausal women with peri- or postmenopausal women on smoking cessation outcomes[26]
- Studies suggest that group counseling and support is of greater benefit in postmenopausal women than individual behavioral therapies[24]
- Available studies in postmenopausal women indicate that hormone therapy does not impact nicotine withdrawal, smoking cessation outcomes, or weight gain following cessation[24]
- Concerns regarding potential weight gain and mood changes after cessation are of greater concern in postmenopausal women[24,26]

Pharmacotherapy in Peri- and Postmenopausal Individuals

- Pharmacotherapy follows the same guidelines as those of the general adult population with some special considerations:
  - One study has shown that use of the nicotine patch may increase energy intake during cessation therapy, and that different forms of nicotine replacement therapy may influence caloric intake and post-cessation weight gain in post-menopausal smokers[25]
  - Studies specifically highlight the importance of developing treatments that target depressive symptoms in this population[26]

Nicotine Replacement Therapy

- 1 mg of nicotine is equal to approximately 1 cigarette
- Recommend starting with an equal number of mg per day to number of cigarettes smoked daily
- May combine any of the following to reach that daily value
- Efficacy is greater when combining long-acting for controlling urge and short-acting for rescue when urges occur
  - Long-acting – use once daily, lasts 24 hours
    - Nicotine patch (available 21 mg, 14 mg, 7 mg)
  - Short-acting/Rescue – use as needed, not to exceed daily value as above
    - Nicotine gum (2 or 4 mg per piece)
    - Nicotine nasal spray (0.5 mg per spray)
    - Nicotine lozenges (come in 2 or 4 mg per piece)

Bupropion SR

Consider for Perimenopausal or Postmenopausal Women

Efficacy: Combine with NRT for best efficacy. Better efficacy than single-agent NRT, but less efficacious than varenicline in general population; **Bupropion has benefits for weight loss in some patients and may be beneficial in those with concerns of weight gain**

Delivery: 150mg slow-release tablet, 8 hour time action

Screening: Screen for seizure risk (epilepsy, head injury, brain surgery), eating disorder, MAOI current or recent, heavy alcohol use, depression or other psychiatric illness

Mechanism: A weak inhibitor of dopamine and norepinephrine reuptake, reducing nicotine withdrawal. Metabolized in the liver

Instructions: Plan to quit 2nd week after starting. Take with food.

Dose: 150mg daily for 3 days then increased to BID, 2nd dose in afternoon (After 8 hours). Some patients do not need 2 doses.

Side Effects: Insomnia, dry mouth, Risk of seizures in susceptible individuals, headache, nausea, agitation, anxiety.

Varenicline (Chantix)

Consider for Perimenopausal or Postmenopausal Women

Efficacy: First line recommended therapy for general adult population; best efficacy achieved when combined with NRT

Screening: Screen for kidney disease and mental illness.

Mechanism: Partial agonist of 4β2 nicotinic acetylcholine receptors. Reduces cravings and prevents nicotine reward.

Dose: Begin 1-2 weeks before quit date (can begin up to 3 months prior)

Begin with 0.5mg OD days 1-3, 0.5mg BID days 4-7, then 1mg BID. Take after eating with full glass of water

12 week course

Side Effects: Nausea, vivid dreams, insomnia, skin reactions, hallucinations, attempted or completed suicide, seizures

FDA 2015 Warning: Increases intoxication with alcohol

Nicotine Toxicity

Nicotine Toxicity in Children

- Approximately 1 mL of 24 mg/mL e-liquid nicotine is equivalent to a pack of 20 cigarettes[27]
- Nicotine is rapidly absorbed through the skin, oral mucosa, and gastrointestinal (GI) and respiratory tracts, with a 70% to 90% first-pass effect[28]
- A lethal dose is estimated to range from 0.8 mg/kg to 13 mg/kg.
  - Toxicity is dose-dependent, however, and as little as 2 mg of nicotine has caused toxicity in pediatric patients[28]
- Children 5 and under make up 60% of nicotine poisoning[28]
- Compared with children exposed to traditional cigarettes, those exposed to nicotine in e-cigarettes are 5.2 times more likely to be admitted to a healthcare facility and have 2.6 times the risk of a severe outcome[29]

Nicotine Overdose Symptoms

Acute Signs
(Usually resolve in 1-2 hours)

- Nausea, vomiting
- Abdominal pain
- Dizziness
- Sweating
- Diarrhea
- Bronchorrhea
- Salivation
- Wheezing
- Hypertension
- Tachycardia

Higher doses can cause

- Bradycardia
- Dyspnea
- Hypotension
- Paralysis
- Coma
- Seizures
- Death (Rare)

Summary

Pregnancy and Lactation

- Tobacco and nicotine products are harmful in all stages of pregnancy and lactation
- Screen for ALL forms of nicotine delivery
- Metabolism of nicotine is faster in pregnant women, potentially leading to increased cravings and greater need for replacement
- Nicotine transfers readily through the breast milk, and if the patient has not quit, they should be counseled on practices to minimize passage of nicotine to their baby
- Cessation strategies should include consistent counseling, resource recommendations, and the individualized management of pharmacotherapy
  - NRT is fairly well supported
  - Bupropion and Varenicline are not recommended for use by the USPSTF due to lack of research
- Ensure a plan is developed for transition of cessation care when obstetric follow-up is concluded

Peri- and Postmenopausal Individuals

- Associated with even greater risk related to nicotine due to increasing age and reducing estrogen
- Be aware of greater considerations for mood disorders and post-cessation weight gain
- Cessation strategies should include counseling, resource recommendations, and pharmacotherapy like that of the general adult population
  - Group counseling and support is more efficacious in this population
  - Pharmacotherapy may include NRT, bupropion, or varenicline
  - When using bupropion or varenicline, combine with rescue NRT for best effect

Nicotine Toxicity

- Be aware of the signs of nicotine overdose
- Note that e-liquids are very concentrated –
  - 1 mL of 24 mg/mL = 20 cigarettes!
- Children are at great risk of illness or even mortality if they ingest these liquids

Cessation Resources

REFERRAL to Cessation Resources

Center for a Tobacco-Free Finger Lakes

- Home
- Train the Trainer
- Resources for Your Setting
- Stay Informed
- Cessation Referrals
- Newsletter
- Our Team
- Nicotine & Tobacco Research Core

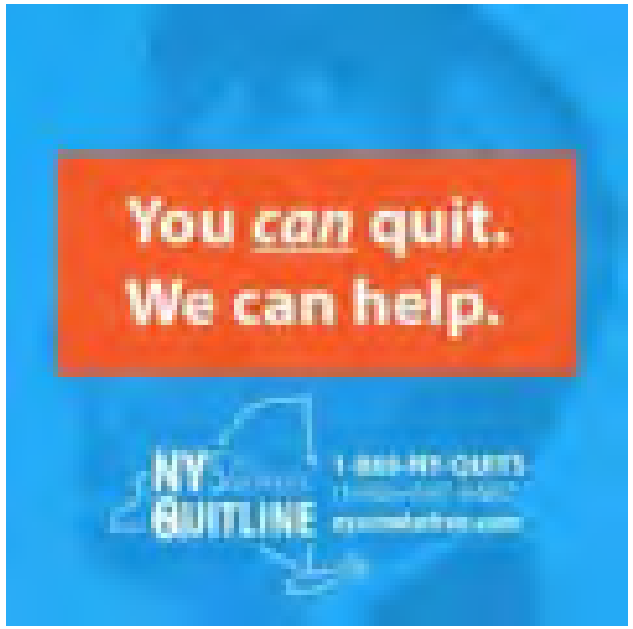
URMC / Public Health Sciences / Research / Center for a Tobacco-Free Finger Lakes / Cessation Referrals

Cessation Referrals

Stop Smoking/Vaping Cessation Resources

- **FOR EVERYONE - NYS Quitline: Call 1-866-NYQUITS (1-866-697-8487)** or visit https://www.nysmokefree.com for free Nicotine Replacement Therapy and one-on-one counseling.
- **FOR EVERYONE - (via Text): Learn2QuitNY:** The NYS Quitline sponsors a free Smoking and Vape Support program via text. Just TEXT "**QUITNOW**" to **333888** to join.
- **FOR PARENTS - (via Text):** To receive daily advice to help youth quit, text **"QUIT"** to **202-899-7550,** or visit **Truth Initiative Parental Resources**
- **"DROPTHEVAPE" FOR TEENS & YOUNG ADULTS - (via Text): Vape Support for ages 13-24.** TEXT **"DROPTHEVAPE" to 88709** to join **This is Quitting**, sponsored by the Truth Initiative.
- **"VAPE ESCAPE" FOR TEENS (via Zoom) - Vape Escape virtual group program: FREE Zoom program for teens 12-18** who would like to cut back or quit vaping offered by The URMC's Center for Community Health & Prevention (CCHP). "Vape Escape" drop-in group sessions provide an interactive and supportive environment where teens can talk openly about vaping with CCHP doctors and health behavior experts, as well as with other youth with similar goals.

New York State Quitline & Quitsite

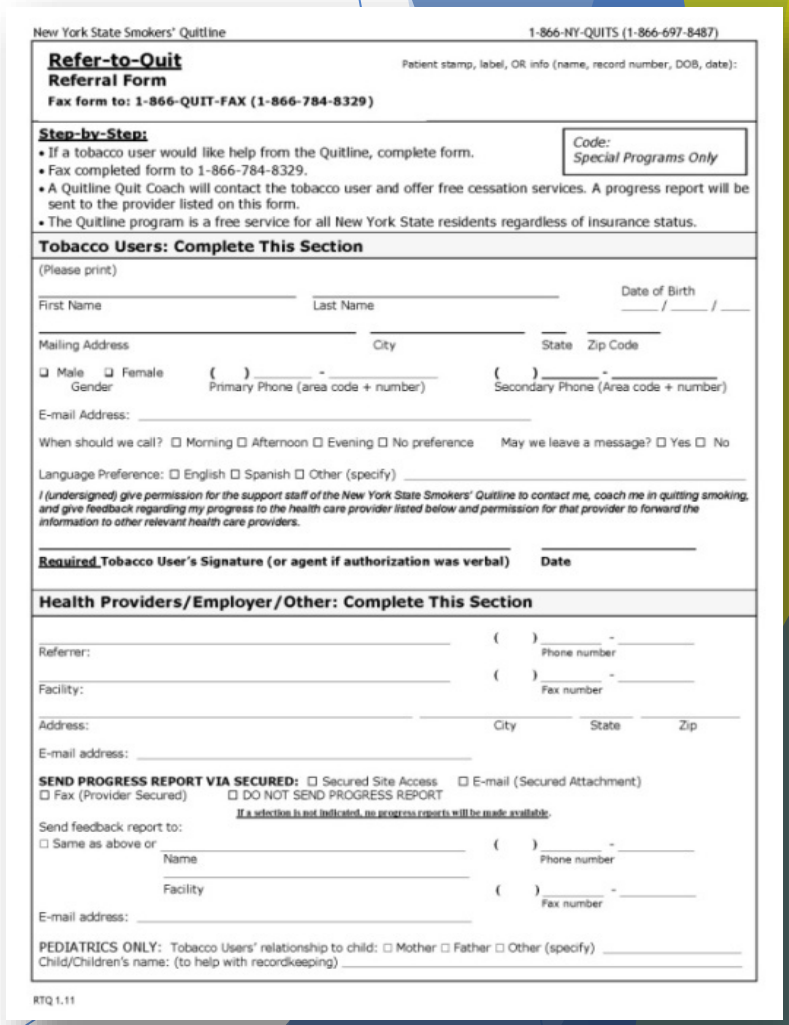


- **Quitline:** Free and confidential telephone Quitline provides **evidence-based** tobacco cessation services to New York State residents who want to quit tobacco product use for good

- **Quitsite:** www.nysmokefree.com

NY State Quitline - Resources and Referral

- Palm cards (passive referral)
- Refer-to-Quit (active referral)
- Electronic Health Record Referral



New York State Smokers' Quitline 1-866-NY-QUITS (1-866-697-8487)

Refer-to-Quit
Referral Form
Fax form to: 1-866-QUIT-FAX (1-866-784-8329)

Patient stamp, label, OR info (name, record number, DOB, date):

Step-by-Step:
- If a tobacco user would like help from the Quitline, complete form.
- Fax completed form to 1-866-784-8329.
- A Quitline Quit Coach will contact the tobacco user and offer free cessation services. A progress report will be sent to the provider listed on this form.
- The Quitline program is a free service for all New York State residents regardless of insurance status.

Code: Special Programs Only

Tobacco Users: Complete This Section

(Please print)
First Name | Last Name | Date of Birth ___/___/___
Mailing Address | City | State | Zip Code
☐ Male ☐ Female Gender | ( ) ___-___ Primary Phone (area code + number) | ( ) ___-___ Secondary Phone (Area code + number)
E-mail Address:
When should we call? ☐ Morning ☐ Afternoon ☐ Evening ☐ No preference May we leave a message? ☐ Yes ☐ No
Language Preference: ☐ English ☐ Spanish ☐ Other (specify)

I (undersigned) give permission for the support staff of the New York State Smokers' Quitline to contact me, coach me in quitting smoking, and give feedback regarding my progress to the health care provider listed below and permission for that provider to forward the information to other relevant health care providers.

Required Tobacco User's Signature (or agent if authorization was verbal) **Date**

Health Providers/Employer/Other: Complete This Section

Referrer: ( ) ___-___ Phone number
Facility: ( ) ___-___ Fax number
Address: City State Zip
E-mail address:

SEND PROGRESS REPORT VIA SECURED: ☐ Secured Site Access ☐ E-mail (Secured Attachment)
☐ Fax (Provider Secured) ☐ DO NOT SEND PROGRESS REPORT
If a selection is not indicated, no progress reports will be made available.

Send feedback report to:
☐ Same as above or
Name ( ) ___-___ Phone number
Facility ( ) ___-___ Fax number
E-mail address:

PEDIATRICS ONLY: Tobacco Users' relationship to child: ☐ Mother ☐ Father ☐ Other (specify)
Child/Children's name: (to help with recordkeeping)

RTQ 1.11

CTFFL
Center for a Tobacco-Free Finger Lakes

The Monroe County Medical Society Guidelines

- **MCMS - Treating Tobacco Use and Dependence**
  - **Regionally used to inform tobacco treatment procedures, recommendations, connect clinicians to referral programming, and more**
  - **tinyurl.com/MCMSTobacco**

Questions?

- **Website:** tinyurl.com/CTFFL-URMC
- **Facebook:** Facebook.com/CTFFL

- **Email Addresses:**
  - Scott_mcintosh@urmc.Rochester.edu – Director of CTFFL
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  - Jessica_Rosman@URMC.Rochester.edu – Health Project Coordinator
  - Ryan_Mulhern@URMC.Rochester.edu – Health Project Coordinator

References

1. Claire R, Chamberlain C, Davey MA, Cooper SE, Berlin I, Leonardi-Bee J, Coleman T. Pharmacological interventions for promoting smoking cessation during pregnancy. Cochrane Database Syst Rev. 2020 Mar 4;3(3).

2. Kipling L, Bombard J, Wang X, Cox S. Cigarette Smoking Among Pregnant Women During the Perinatal Period: Prevalence and Health Care Provider Inquiries — Pregnancy Risk Assessment Monitoring System, United States, 2021. MMWR Morb Mortal Wkly Rep 2024;73:393–398. DOI: http://dx.doi.org/10.15585/mmwr.mm7317a2

3. Martin et al. 2024 Heart disease and stroke statistics: a report of U.S. and global data from the American Heart Association. Circulation. Published online January 24, 2024. doi: 10.1161/CIR.0000000000001209

4. Vilcassim MJR, Stowe S, Majumder R, Subramaniam A, Sinkey RG. Electronic Cigarette Use during Pregnancy: Is It Harmful? Toxics. 2023 Mar 18;11(3):278. doi: 10.3390/toxics11030278. PMID: 36977043; PMCID: PMC10058591.

5. Tobacco and Nicotine Cessation During Pregnancy: ACOG Committee Opinion, Number 807. Obstet Gynecol. Reaffirmed 2023;135(5).

6. Academy of Breastfeeding Medicine Protocol #21. Available at: https://abm.memberclicks.net/assets/DOCUMENTS/PROTOCOLS/ABM%20Clinical%20Protocol%2021%20SUD_English.pdf

7. Andersen AN, Lund-Andersen C, Larsen JF, Christensen NJ, Legros JJ, Louis F, Angelo H, Molin J. Suppressed prolactin but normal neurophysin levels in cigarette smoking breast-feeding women. Clin Endocrinol (Oxf). 1982 Oct;17(4):363-8.

8. Jamshed L, Perono GA, Jamshed S, Holloway AC. Early Life Exposure to Nicotine: Postnatal Metabolic, Neurobehavioral and Respiratory Outcomes and the Development of Childhood Cancers. Toxicol Sci. 2020 Nov 1;178(1):3-15.

9. Vio F, Salazar G, Infante C. Smoking during pregnancy and lactation and its effects on breast-milk volume. Am J Clin Nutr. 1991 Dec;54(6):1011-6. doi: 10.1093/ajcn/54.6.1011. PMID: 1957815.

References Continued

10. Sachs C, Frattarelli DA, Galinkin JL, Green TP, Johnson T, Neville K, Paul IM, Van den Anker J. The Transfer of Drugs and Therapeutics into Human Breast Milk. Pediatrics (2013) 132 (3): e796–e809.

11. Dempsey DA, Jacob P 3rd, Benowitz NL. Nicotine metabolism and elimination kinetics in newborns. Clin Pharmacol Ther. 2000 Apr;67(4):458-65.

12. The health consequences of smoking – 50 years of progress: a report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

13. Diamanti A, Papadakis S, Schoretsaniti S, Rovina N, Vivilaki V, Gratziou C, Katsaounou PA. Smoking cessation in pregnancy: An update for maternity care practitioners. Tob Induc Dis. 2019 Aug 2;17:57.

14. Jacob N, Golmard JL, Berlin I. Fetal exposure to tobacco: Nicotine and cotinine concentration in amniotic fluid and maternal saliva. J Matern Neonatal Med. 2016;30:233–239.

15. Morales-Suárez-Varela M, Puig BM, Kaerlev L, Peraita-Costa I, Perales-Marín A. Safety of Nicotine Replacement Therapy during Pregnancy: A Narrative Review. Int J Environ Res Public Health. 2022 Dec 23;20(1):250. doi: 10.3390/ijerph20010250. PMID: 36612572; PMCID: PMC9819948.

16. Huecker MR, Smiley A, Saadabadi A. Bupropion. [Updated 2023 Apr 9]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK470212/

References Continued

17. Tobacco Use and Dependence Guideline Panel. Treating Tobacco Use and Dependence: 2008 Update. Rockville (MD): US Department of Health and Human Services; 2008 May. Table 3.9, Clinical use of varenicline (See FDA package insert for more complete information). Available from: https://www.ncbi.nlm.nih.gov/books/NBK63943/table/A29465/

18. Slaich B, Claire R, Emery J, Lewis S, Cooper S, Thomson R, Phillips L, Kinahan-Goodwin D, Naughton F, McDaid L, Clark M, Dickinson A, Coleman T. Comparison of saliva cotinine and exhaled carbon monoxide concentrations when smoking and after being offered dual nicotine replacement therapy in pregnancy. Addiction. 2022 Mar;117(3):751-759.

19. Bérard A, Zhao JP, Sheehy O. Success of smoking cessation interventions during pregnancy. Am J Obstet Gynecol. 2016 Nov;215(5):611.e1-611.e8.

20. Choi SKY, Tran DT, Kemp-Casey A, Preen DB, Randall D, Einarsdottir K, Jorm LR, Havard A. The Comparative Effectiveness of Varenicline and Nicotine Patches for Smoking Abstinence During Pregnancy: Evidence From a Population-based Cohort Study. Nicotine Tob Res. 2021 Aug 29;23(10):1664-1672.

21. Tran DT, Preen DB, Einarsdottir K, Kemp-Casey A, Randall D, Jorm LR, Choi SKY, Havard A. Use of smoking cessation pharmacotherapies during pregnancy is not associated with increased risk of adverse pregnancy outcomes: a population-based cohort study. BMC Med. 2020 Feb 5;18(1):15.

22. Chan B, Einarson A, Koren G. Effectiveness of bupropion for smoking cessation during pregnancy. J Addict Dis. 2005;24(2):19-23.

23. Kim S, Oancea SC. Electronic cigarettes may not be a "safer alternative" of conventional cigarettes during pregnancy: evidence from the nationally representative PRAMS data. BMC Pregnancy Childbirth. 2020 Sep 23;20(1):557.

24. Copeland AL, McVay MA, Martin PD, Rash CJ, Kendzor DE, Baillie LE, Spears CA, Geiselman PJ. Smoking relapse and weight gain prevention program for postmenopausal weight-concerned women: A pilot study. Eating Behaviors. 2015;18:107-114.

References Continued

25. Allen AM, Kleppinger A, Lando H, Oncken C. Effect of nicotine patch on energy intake and weight gain in postmenopausal women during smoking cessation. Eating Behaviors. 2013;14(4):420-423.

26. Peltier MR, Flores JM, Smith PH, Roberts W, Verplaetse TL, Moore KE, Hacker R, Oberleitner LM, McKee SA. Smoking Across the Menopausal Transition in a 10-Year Longitudinal Sample: The Role of Sex Hormones and Depressive Symptoms. Nicotine Tob Res. 2020 May 26;22(6):872-877.

27. Pulvers K, Emami AS, Nollen NL, et al. Consumption and toxicant exposure of cigarette smokers using electronic cigarettes. Nicotine Tob Res. 2018;20(2):206-214.

28. Kim JW, Baum CR. Liquid nicotine toxicity. Pediatr Emerg Care. 2015;31(7):517-521.

29. Quail MT. Nicotine toxicity: Protecting children from e-cigarette exposure. Nursing. 2020 Jan;50(1):44-48.