

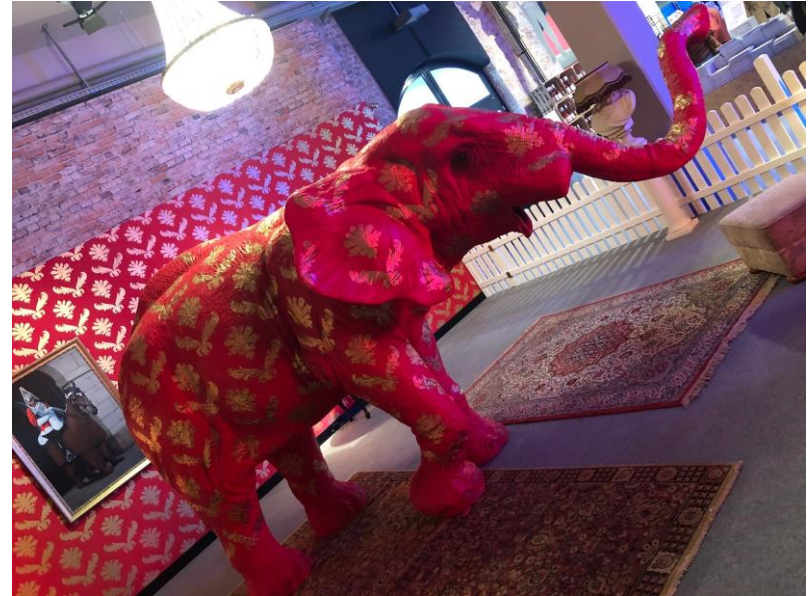
## Tabak- & Nikotinentwöhnung für psychiatrische Patient\*innen

Karin Vitzthum, 13.2.25

## 4.2. Weltkrebstag & 31.5. Weltnichtrauchertag & 1.8. Weltlungenkrebstag

Der wichtigste Punkt, an dem wir politisch umsteuern können, ist die Vorbeugemedizin beim **Rauchen**. Rauchen verursacht so viele Krebserkrankungen, dass man sagen kann, es ist der einzigartige Risikofaktor, der mit größter Verlässlichkeit für sehr viele tödliche Krebserkrankungen verantwortlich ist. **Somit ist unser wichtigstes Medikament gegen den Krebs, zu verhindern, dass Menschen rauchen.**

**BM Lauterbach 2015**



Smoking cessation is **associated with reduced depression, anxiety, and stress and improved positive mood and quality of life** compared with continuing to smoke. **The effect size seems as large for those with psychiatric disorders as those without.** The effect sizes are equal or larger than those of antidepressant treatment for mood and anxiety disorders.

Gemma Taylor, Ann McNeill, Alan Girling, Amanda Farley, Nicola Lindson-Hawley, Paul Aveyard: Change in mental health after smoking cessation: systematic review and meta-analysis;

BMJ 2014; 348

➤ **Vor diesem Hintergrund sollte die Raucherentwöhnung ein relevanter Baustein in der Regelbehandlung psychiatrischer Patienten werden**  
(Prof. Dr. Falk Kiefer)

**Wir müssen die psychiatrischen Behandlungsparadigmen vom Kopf auf die Beine stellen**  
(Prof. Dr. Anil Batra)

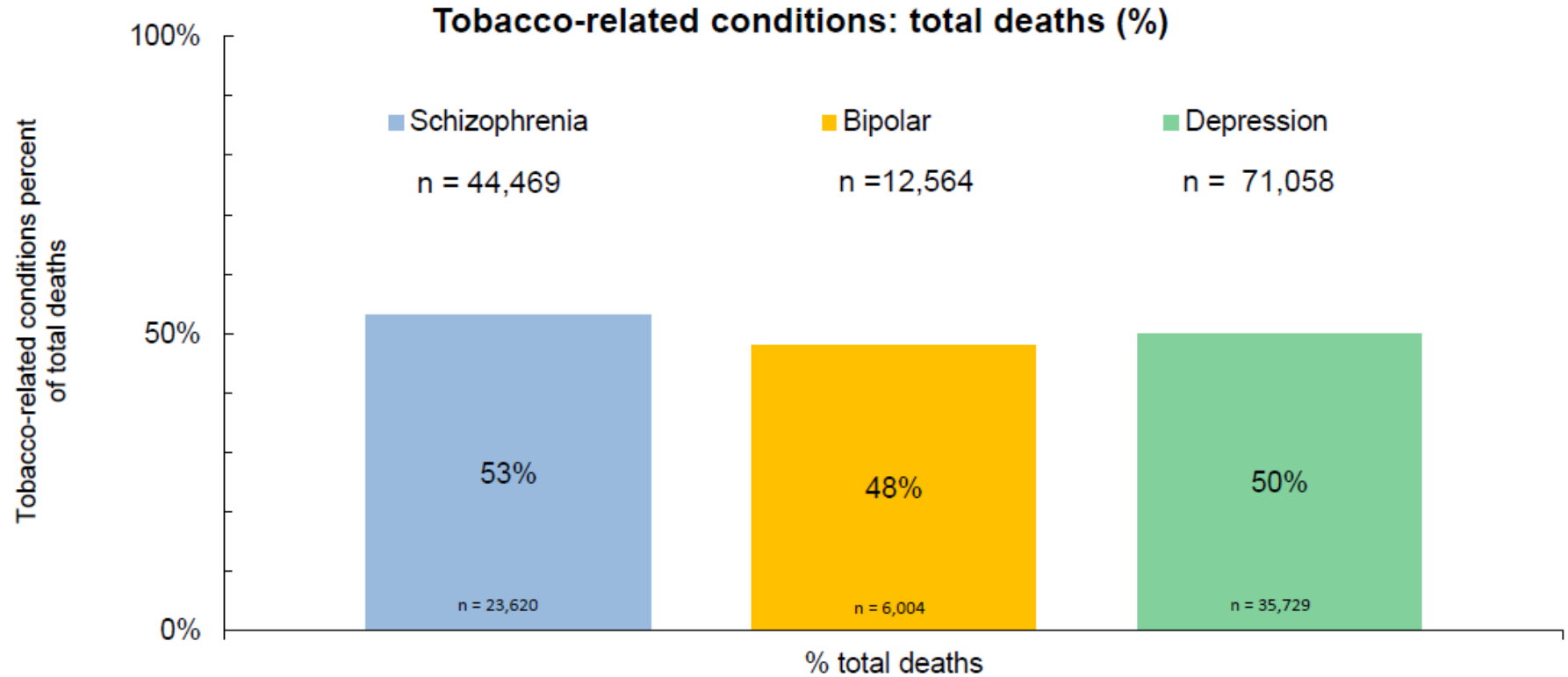
## In der Realität aber sind immer noch 5 Mythen in der Psychiatrie verbreitet....

- Rauchstopp hat keine Priorität
- Psychiatrische Patient\*innen sind nicht zum Aufhören bereit
- Psychiatrische Patient\*innen schaffen das Aufhören nicht
- Rauchen hilft im Umgang mit Stress und Depression
- Ein Rauchstopp verschlechtert die psychische Verfassung

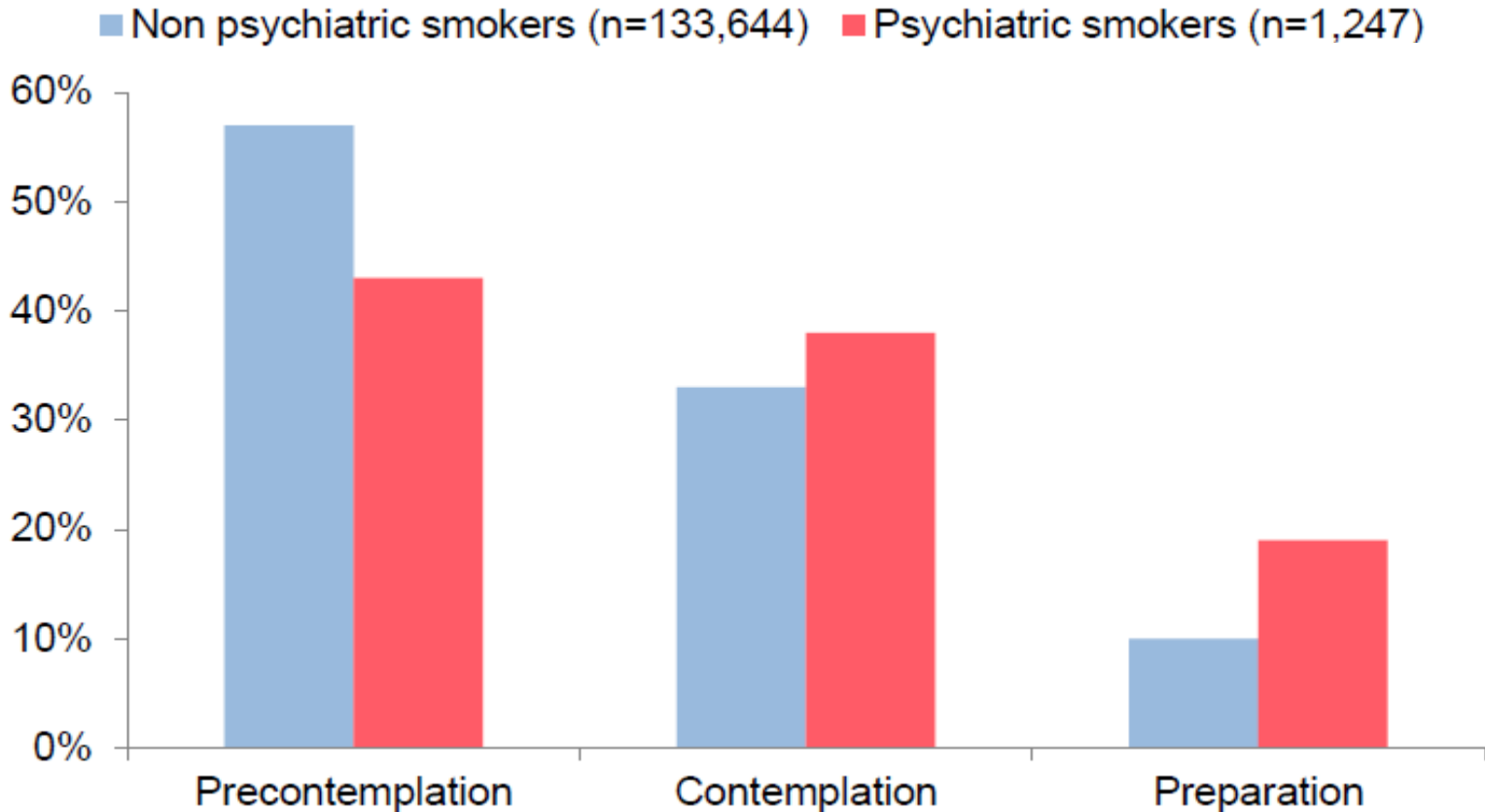


Patients/Clients, carers and mental health clinicians often perceive smoking as beneficial. They often attribute improved mood and reduced anxiety to the effects of smoking rather than the reality that smoking simply alleviates the effects of nicotine withdrawal that occur throughout the day. This 'self-medication hypothesis' is often voiced among clinicians but has little consistent empirical evidence to support it.

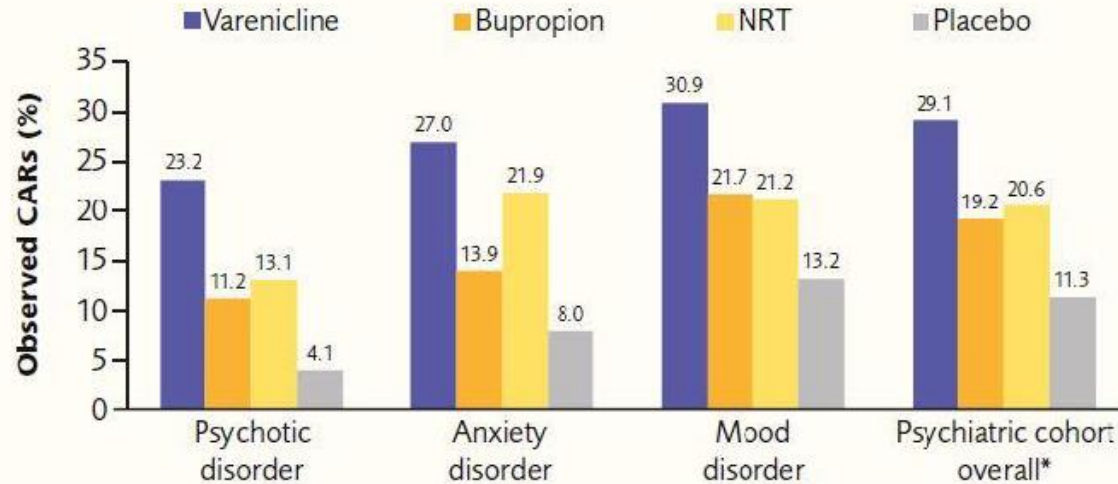
## The Benefits Of Stopping Smoking



# Psychiatrische Patient\*innen sind nicht motiviert - Siru, R et al. Addiction. 2009;104:719-23



# Psychiatrische Patient\*innen schaffen es nicht



Treatment comparison	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
Varenicline vs placebo	6.93 (1.61, 29.84)	4.55 (2.05, 10.11)	3.03 (2.13, 4.32)	4.57 (2.59, 8.06)
Bupropion vs placebo	2.99 (0.63, 14.14)	1.91 (0.81, 4.51)	1.91 (1.32, 2.76)	2.22 (1.21, 4.06)
NRT vs placebo	3.40 (0.74, 15.61)	3.43 (1.52, 7.74)	1.80 (1.24, 2.61)	2.76 (1.53, 4.97)

CAR, continuous abstinence rate; CI, confidence interval; NRT, nicotine replacement therapy (transdermal nicotine patch); OR, odds ratio  
 \*N=4050 (excludes participants with borderline personality disorder, n=24)

\*From GLIMMIX model that included terms for treatment, psychiatric diagnostic group, sex, FTCD total score, prior alcohol or substance use disorder, and region. CI, confidence interval. Extracted from Evins, AE. Poster P7-037. American Psychiatric Association (APA) Annual Meeting, May 20–24, 2017; San Diego, California, USA

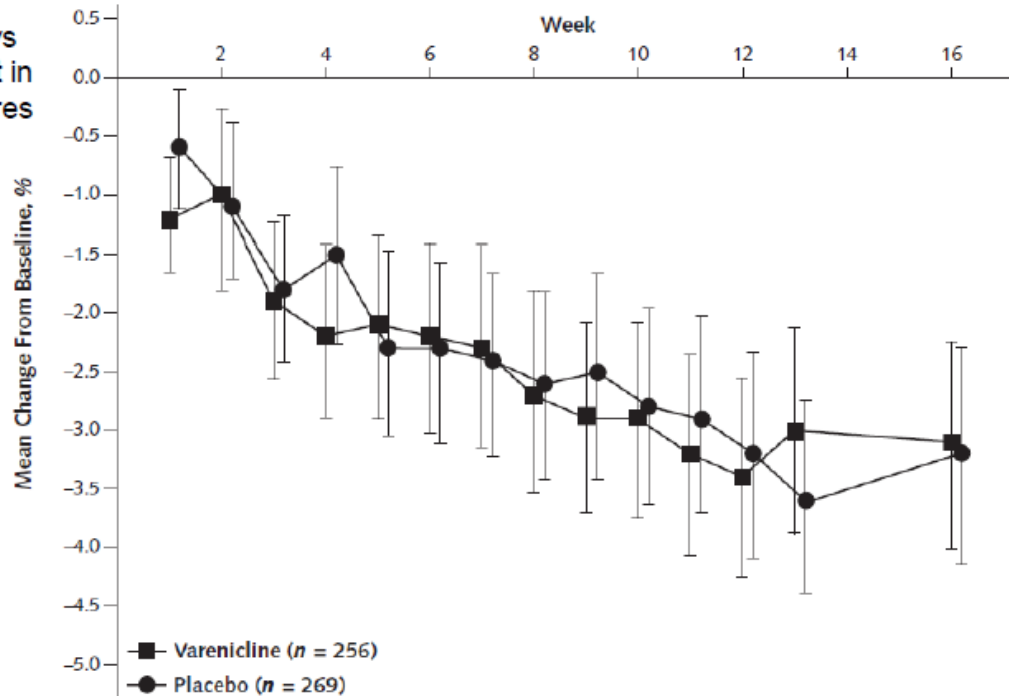


# Rauchstopp verschlechtert den Zustand

- Anthenelli, RM et al. Ann Intern Med. 2013;159:390-400

## Change in depression (MADRS) scores after quit date in depressed smokers

Trend shows improvement in MADRS scores



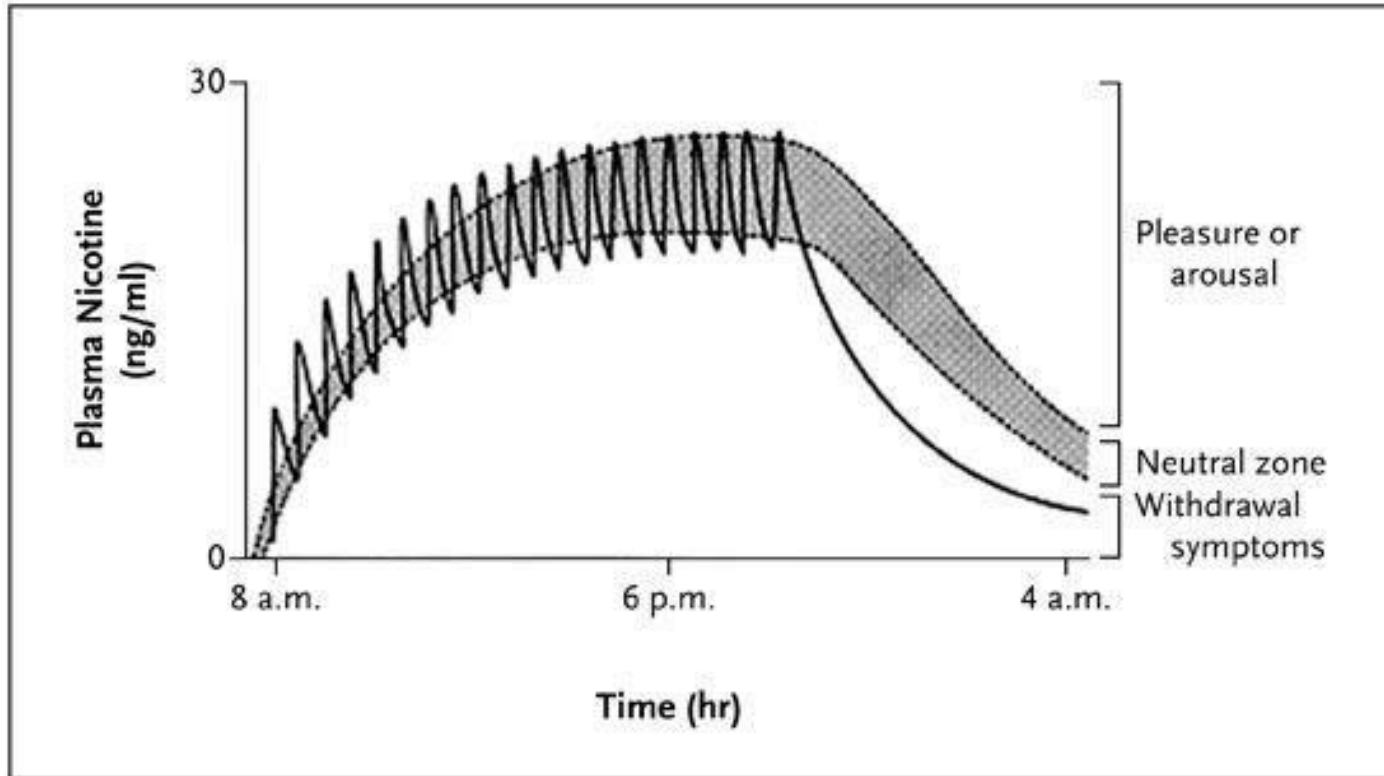
## Psychiatrische Patient\*innen

- Rauchprävalenz zwischen 60-75%
- Stärkere Abhängigkeit, höherer Konsum (80c/d)
- Soziale Fertigkeiten eingeschränkt
- Höhere Rückfallgefahr
- Gesetzliche Sonderregelungen: Rauchen in Innenräumen & Compliance der MA!?
- **harm-reduction mit E-Produkten?!**

Cerci, D: Attitudes of staff towards smoke-free environments in psychiatric hospitals in Germany Tob Induc Dis. 2022 Sep 5:20:76.



# Typisches Rauchmuster (Antoniewicz, 2025)



# Bivalente Wirkung – Nikotin (Antoniewicz 2024)

Dopamin: Freude, Appetitzügelung

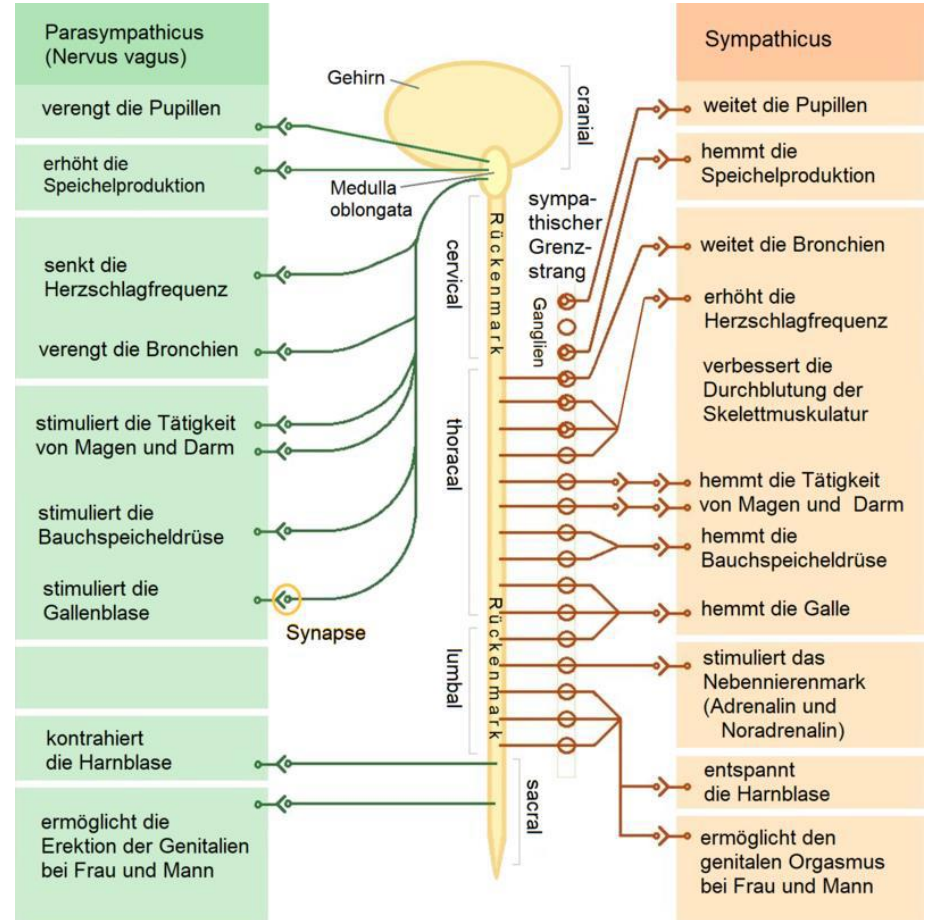
Adrenalin: Wachsamkeit, Appetitzügelung

Acetylcholin: Wachsamkeit,  
Wahrnehmungsfähigkeit

Vasopressin: Gedächtnis

Serotonin: Stimmungslage, Appetitzügelung

Beta-Endorphin: Angstlösend



# Nikotin- und Tabakprodukte

## Bekanntere Produkte

- Zigaretten
- Loser Tabak
- Zigarren, Zigarillos
- Pfeifentabak
- Shisha
- Kautabak/Schnupftabak
- (Snus)

Neues

Nikotin

E-Zigaretten,

Tabakerhitzer

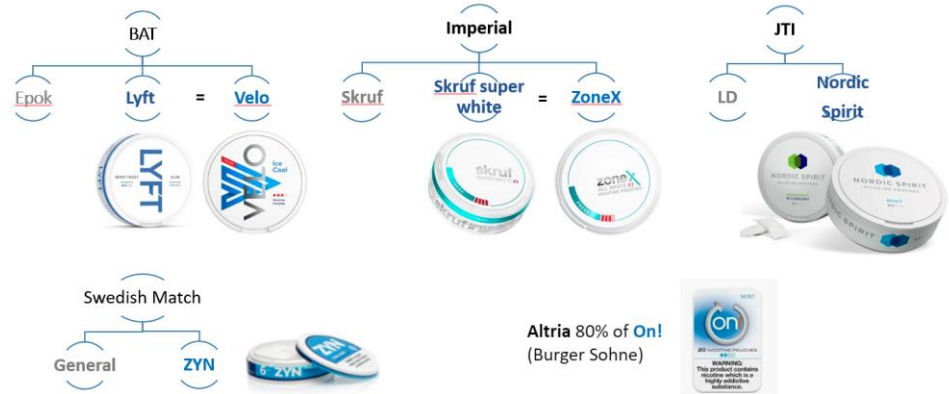
Einweg

Vapes

Nikotinbeutel

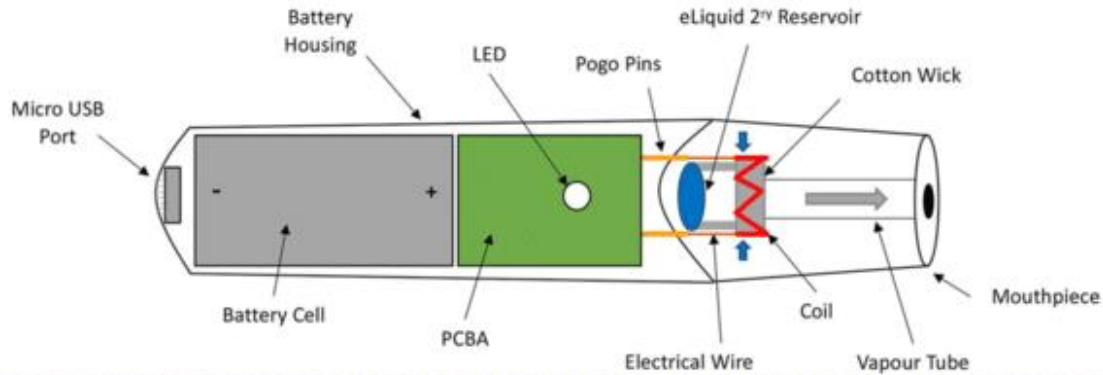


Snus & Nicotine pouches owned by tobacco companies

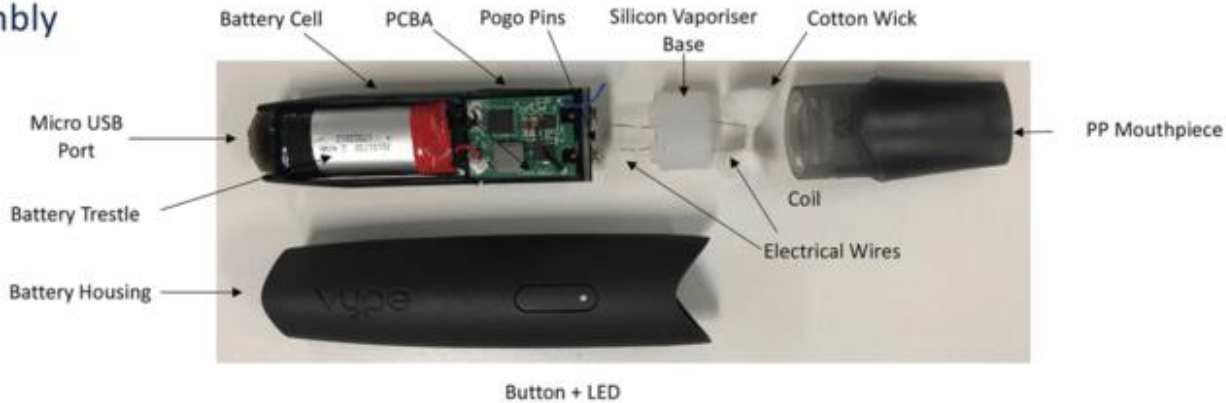


# Einweg E-Zigaretten (Antoniewicz 2024)

Schematic



Disassembly

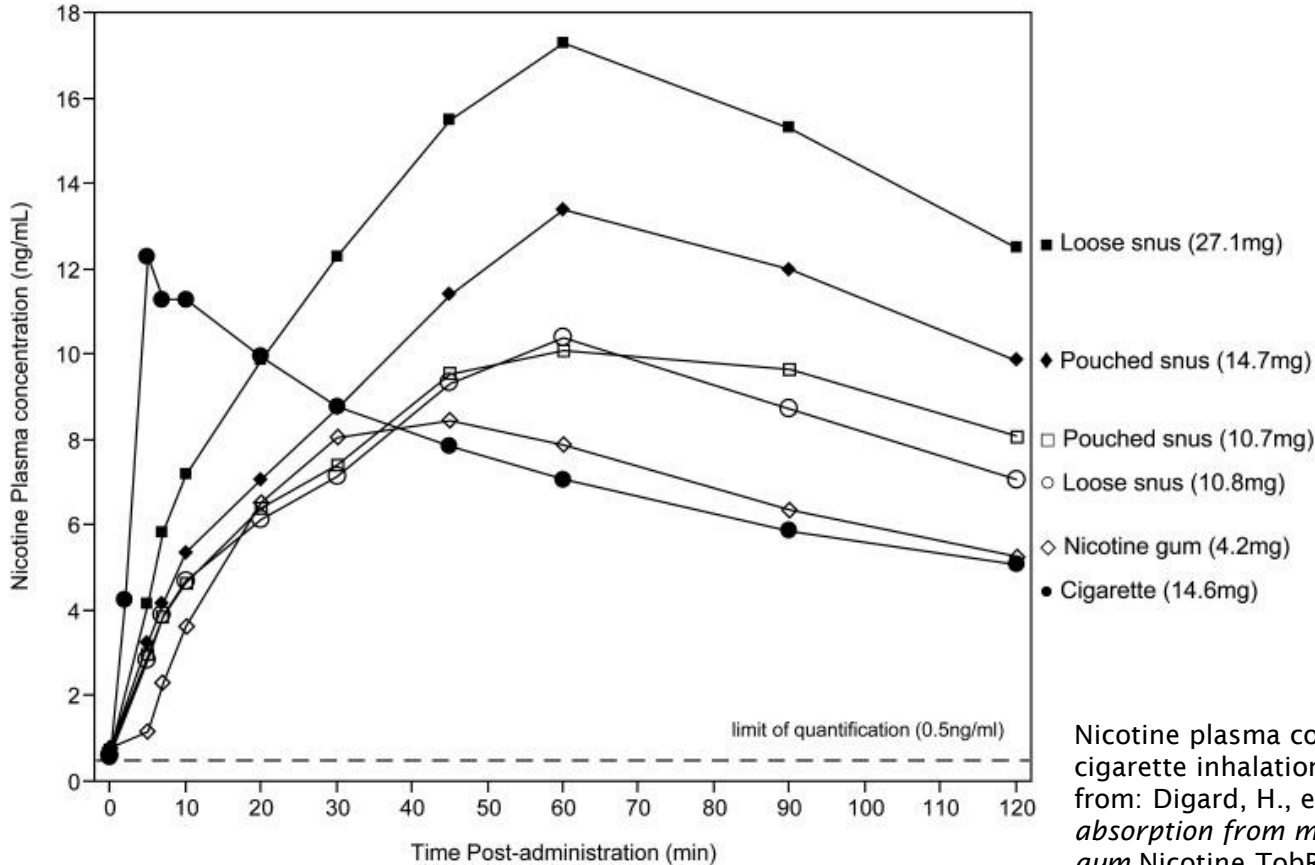


Cunningham, Anthony & Mcadam, Kevin & Thissen, Jesse & Digard, Helena. (2020). The Evolving E-cigarette: Comparative Chemical Analyses of E-cigarette Vapor and Cigarette Smoke. *Frontiers in Toxicology*. 2. 10.3389/ftox.2020.586674.

# Nikotin – Nikotinsalz – Unterschiede (Antoniewicz 2024)

	Klassisches Nikotin	Nikotinsalz
Zigaretten	X	
Tabakerhitzer	X	
E-Zigaretten	X	X
Einweg E-Zigaretten		X
Nikotinbeutel		X
Snus (nur Schweden)	X	
Nikotinersatzprodukte (Pflaster, Kaugummi)	X	

	Klassisches Nikotin	Nikotinsalz	Aufnahme
Zigaretten (Stick)	10 - 15mg		1 - 2mg
Tabakerhitzer (Stick)	0,5 - 1,2mg		0,3-1,7mg
E-Zigaretten (/ml)	3 -18mg	10 - 20mg	
Einweg E-Zigaretten (/ml)		20mg	
Nikotinbeutel		1 - 20mg	0,2 - 6mg
Snus (nur Schweden)	7 - 17mg		0,7- 3mg
Nikotinersatzprodukte (Kaugummi)	2 - 4 mg		0,5- 2 mg



Nicotine plasma concentrations following exposure to cigarette inhalation, snus and nicotine gum. Adapted from: Digard, H., et al., *Determination of nicotine absorption from multiple tobacco products and nicotine gum*. Nicotine TobRes, 2013. 15(1): p. 255-61.



## Aerosol von E-Zigaretten & Folgen

- Feine und ultrafeine Bestandteile
- Nitrosamine: kanzerogen
- Polyzyklische aromatische Kohlenwasserstoffe (PAHs): kanzerogen
- VOCs (Formaldehyd): Entzündung
- Reactive oxygen species (ROS): Oxidativer stress
- Metalle: Allergien

**Nikotinsalze** schmecken besser als klassisches Nikotin

- Aufnahme über kleine Atemwege
- Schnelle Nikotinanflutung
- Erhöht die Suchtgefahr
- Einweg E-Zigaretten und Nikotinbeutel enthalten Nikotinsalze
- pH Wert anheben->mehr Nikotin wird aufgenommen
- Nikotingehalt sagt nicht viel über die Aufnahme

# Tabakerhitzer

## Philip Morris International (PMI) – Iqos

**Iqos 3 Duo**

**Iqos 2.4 (Plus)**

**Iqos 3 Multi**

**Iqos Iluma**

**Heets**  
Marlboro for Iqos (Japan)  
Marlboro heatsticks (US)

**Heets Dimensions**  
Heets Creations

**Terea**  
\*Launched in July 2021

TobaccoIntelligence

\*The name and design of consumables might vary depending on the country

Erhitzung bis 240-350C  
Tabak-Sticks:  
Tabak  
Glycerin

## Compatible heated tobacco devices

Although big tobacco brands dominate the market, smaller independent manufacturers (mostly Chinese) are developing their own devices with a huge variety of shapes, designs and functionalities and trying to surf the wave introducing them in well-developed heated tobacco markets. Some of the most important brands are:



\*Other compatible hardware brands: MOMO, Cigma, FQ, Pasus, VIPR, MOOPOP, Quick, Uwoo, TRICKSTER, Chiqos, Joux, QOO, SL5, SEFRE



## British American Tobacco (BAT) – Glo

**Glo Hyper (Plus)**

**Neostiks (Neo) Demi**

**Glo Nano**

**Neostiks (Neo) Nano**

**Glo Pro**

**Neo Pods**

**Glo Sens - Hybrid**

TobaccoIntelligence

\*The design of consumables might vary depending on the country

## Aufhören....

- Schlusspunktmethode ist Reduktion deutlich überlegen
- Verhaltenstherapeutische Gruppenentwöhnung durch GKK rückerstattungsfähig und effektiv
- Einzeltherapie nur als Privatleistung
- Pilotstudie: stationäre Entwöhnung (Freiburg) oder als Nebendiagnose Reha
- DIGAs, Online, Selbsthilfematerialien, **Rauchfreiticket**
- **Vivantes**
  1. Kostenlose Abgabe NRT ambulante & stationäre Patient\*innen
  2. **Vivantes Info-Materialien**
  3. Rauchfrei-Fibel auch auf türkisch & englisch

Viele Ausstiegsversuche  
passieren zufällig, d.h. sind planlos,  
spontan unvorbereitet...

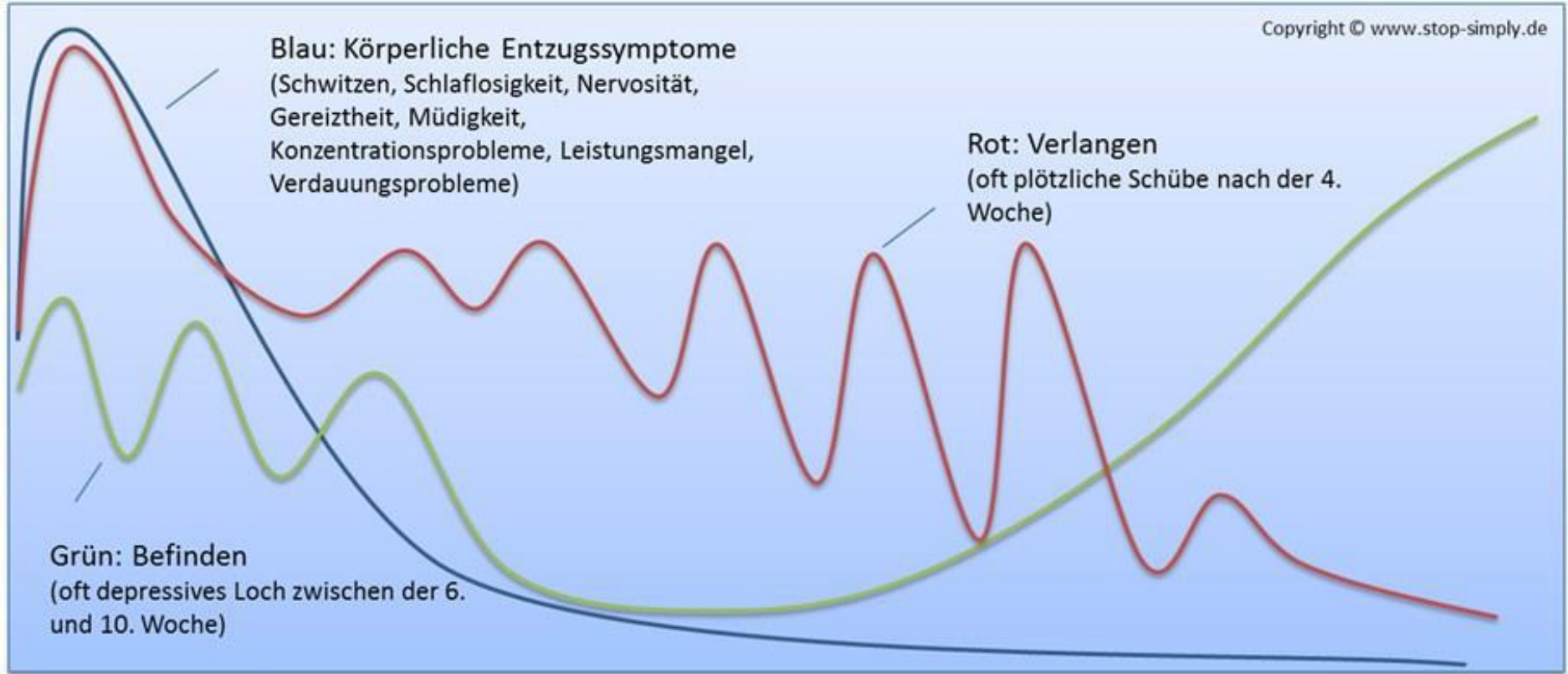
# Motivation zur Tabakabstinenz

- **Ärztliche Aufklärung & Unterstützung wird angeboten**
- gesundheitliche Aspekte
- Konflikt zwischen Autonomie und Abhängigkeit
- Vorbildfunktion gerät in Frage
- Finanzielle Aspekte
- Ambivalenz weiterräumen und aufhören steigt
- Rauchfreie Umgebung oder Arbeitsplatz
- Erkrankungen im Umfeld
- **Umweltgefahren**
- ....

Blau: Körperliche Entzugssymptome  
(Schwitzen, Schlaflosigkeit, Nervosität,  
Gereiztheit, Müdigkeit,  
Konzentrationsprobleme, Leistungsmangel,  
Verdauungsprobleme)

Rot: Verlangen  
(oft plötzliche Schübe nach der 4.  
Woche)

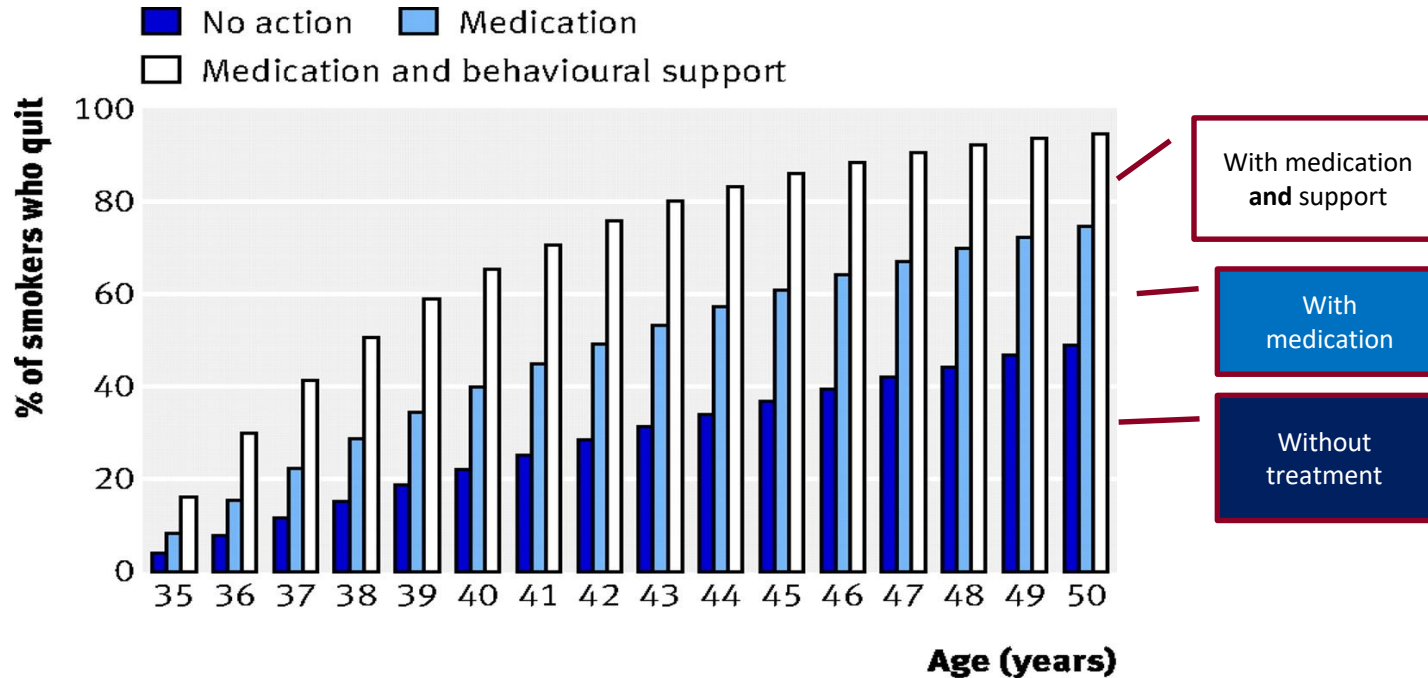
Grün: Befinden  
(oft depressives Loch zwischen der 6.  
und 10. Woche)



- 1. Woche
- 2. Woche
- 3. Woche
- 4. Woche
- 5. Woche
- 6. Woche
- 7. Woche
- 8. Woche
- 9. Woche
- 10. Woche
- 11. Woche
- 12. Woche

# Effekt Ersatzmedikation & Beratung

## Erfolgsaussichten im Lebensverlauf bei einem Aufhörversuch pro Jahr



Aveyard and West. Managing Smoking Cessation. BMJ 2007;335:37-41

## S-3 Leitlinie Tabakabhängigkeit 2021 (Batra 2024)

Cochrane Database of Systematic Reviews 2023, Issue 6. Art. No.: CD013308.

DOI: 10.1002/14651858.CD013308.pub2.

•68 Studien mit 43.327 TeilnehmerInnen.

- Die Kombination von NET (schnell wirksame Form plus Pflaster) ist wirksamer als die Einzelform
- 21-mg-Pflaster sind wirksamer als 14-mg-Pflaster.
- „Preloading“ (mit Pflaster) hat einen günstigen Effekt auf die Abstinenz
- Keine eindeutigen Hinweise auf einen Effekt der Dauer der Anwendung von Nikotinplastern oder der Dauer der kombinierten Anwendung
- Kardiale und allgemeine Nebenwirkungen sowie Behandlungsabbrüche wurden in den Studien unterschiedlich und selten ermittelt → keine eindeutigen Belege für eine Gefährdung

**Nikotinersatztherapie:** Kaugummi, Pflaster, Nasalspray, Mundspray, Inhaler, Tablette

•**Partielle Agonisten:** Cytisin, Vareniclin

•**Antidepressiva:** Bupropion

**Cochrane Database of Systematic Reviews 2023, Issue 5. Art. No.: CD000031.**

**DOI: 10.1002/14651858.CD000031.pub6.**

- 124 Studien mit 48.832 TeilnehmerInnen.
- 10 neue Studien.
- Bupropion unterstützt die langfristige Rauchentwöhnung.
- Bupropion erhöht die Rate an SAEs.
- Bupropion scheint ebenso erfolgreich zu sein, wie eine alleinige Nikotinersatztherapie, aber weniger wirksam als eine Kombination von NRT und Vareniclin.
- Weitere Studien werden die Interpretation der Wirkung wahrscheinlich nicht ändern.**
- Nortriptylin wirkt sich im Vergleich zu Placebo ebenfalls positiv auf die Rauchentwöhnungsrate aus.

Epilept. Anfälle in der Anamnese

- Bulimia oder Anorexia nervosa
- ZNS –Tumor
- Entzugssyndrom von Alkohol oder Benzodiazepinen
- Einnahme von Medikamenten, die die Krampfschwelle senken(z.B. Neuroleptika, Antidepressiva, Theophyllin, Steroide, Tramadol, Antihistaminika)
- Alkoholabusus, Z.n. Schädelhirntrauma
- Behandlungsbedürftiger Diabetes mellitus
- Einnahme von Stimulantien oder Appetitzüglern



Cochrane Database of Systematic Reviews 2023, Issue 6. Art. No.: CD006103.

DOI: 10.1002/14651858.CD006103.pub9.

- 75 Studien mit 45.049 TeilnehmerInnen.

- 45 neue Studien.

- Sowohl Cytisin als auch Vareniclin helfen mehr Menschen bei der Raucherentwöhnung als Placebo oder keine Medikamente

- Vareniclin ist wirksamer als Bupropion oder eine einzelne Form der Nikotinersatztherapie und möglicherweise genauso wirksam oder wirksamer als eine doppelte Form der Nikotinersatztherapie.

- Vareniclin hat ein höheres Risiko für SAE; das Risiko für kardiale SAE und ein geringes Risiko für neuropsychiatrische SAEs ist sowohl mit dem Nutzen als auch mit dem Schaden vereinbar.

- Unter Cytisin werden seltener SAEs berichtet als unter Vareniclin.

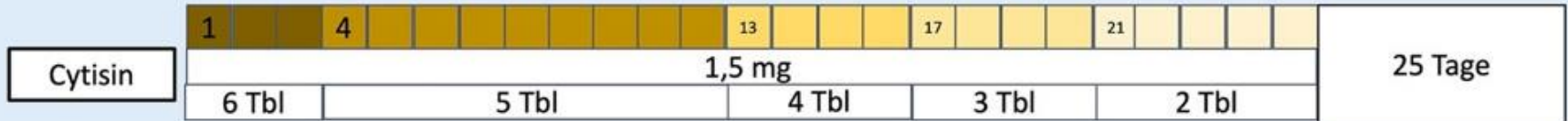
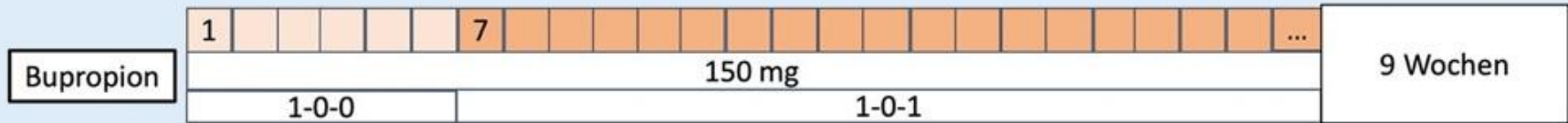
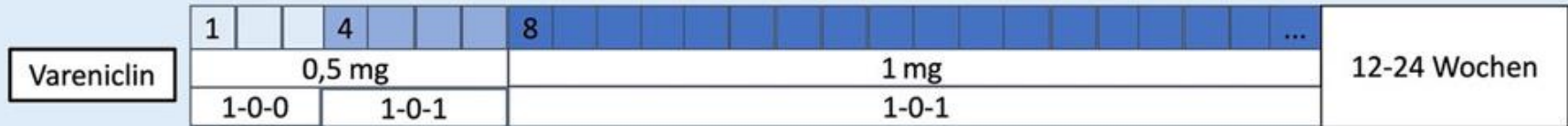
- Cytisin und Vareniclin sind vermutlich gleich wirksam.

- Künftige Studien sollten Wirksamkeit und Sicherheit von Cytisin im Vergleich zu Vareniclin untersuchen und auch Dosis und Dauer testen.

- Weitere Studien zur Wirkung von Vareniclin in Standarddosierung im Vergleich zu Placebo sind nur von begrenztem Nutzen.

## Medikamente in der Tabakentwöhnung (Raspe 2024)

Ende der  
Behandlung nach:



Tab. 2 Nikotinersatztherapie und medikamentöse Behandlungsoptionen			
	Substanz/ Applikation	Dosierung	Besonderheiten
<i>Nikotinersatztherapie (NET)</i>	Nikotin- pflaster	16 h-Pflaster: 8,3 mg, 16,6 mg, 24 mg 24 h-Pflaster: 17,5 mg, 35 mg, 52,5 mg	Bei Zigarettenkonsum > 20 Stück/Tag (Aufnahme von ca. 1 mg Nikotin/Zigarette) Beginn mit hoher Dosierung, z. B. 24 h-Pflaster mit 52,5 mg, entspricht 21 mg Nikotin/24 h
	Nikotin- kaugummi	2 mg oder 4 mg	Schnell und kurz wirksam
	Nikotin- spray	1 mg/Sprühstoß	Schnell und kurz wirksam, Resorption über Mundschleimhaut
	Nikotin- lutschta- bletten	1 mg oder 2 mg	Schnell und kurz wirksam
	Nikotin- halator	15 mg/Patrone	Schnell und kurz wirksam Resorption über Mundschleimhaut
	Nikotin- schmelzta- bletten	0,2 mg/Tablette	Schnell und kurz wirksam
<i>Medikamentöse Therapie</i>	Vareniclin	Tag 1–3: 0,5 mg (1-0-0) Tag 4–7: 0,5 mg (1-0-1) Tag 8 bis Ende: 1 mg (1-0-1)	Tag des Rauchstopps muss feststehen, Therapieende nach 12–24 Wochen empfohlen
	Bupropion	Tag 1–6: 150 mg (1-0-0) Tag 7–14: 150 mg (1-0-1) Tag 15 bis Ende: 150 mg (1-0-1)	Tag des Rauchstopps muss feststehen, Therapieende nach 9 Wochen, Ausschleichen wird empfohlen
	Cytisin	Tag 1–3: 1,5 mg alle 2 h (6 Tabletten) Tag 4–12: 1,5 mg alle 2,5 h (5 Tabletten) Tag 13–16: 1,5 mg alle 3 h (4 Tabletten) Tag 17–20: 1,5 mg alle 5 h (3 Tabletten) Tag 21–25: 1,5 mg (1 Tablette)	Rauchstopp sollte spätestens am 5. Tag nach Therapiestart erfolgen, Therapieende nach 25 Tagen

## Smoking and mental illness: A guide for health professionals

Around 32% of people with mental illness smoke cigarettes<sup>1</sup>. However, tobacco addiction is more common among people with low prevalence mental illnesses than those with high prevalence disorders<sup>1</sup>. International and Australian studies among people with psychotic illness such as schizophrenia have found rates of smoking between 60% and 73%<sup>1,4</sup>.

The reasons people with a mental illness smoke are complex, but many seriously want to quit and are capable of doing so with the right support. They often feel they can't quit alone, but have difficulty finding a health professional who feels confident to help them with this task.

Some health professionals may view smoking as one of the few 'pleasures' for people with a mental illness, and don't see an immediate need to challenge this. However, for people with a mental illness there are additional physical, psychological and social risks involved in smoking. They have a lot to gain from quitting but they need support to achieve this.

Health professionals should offer people with a mental illness smoking cessation interventions that have been shown to be effective in the general population<sup>5</sup>. Mental illness is not a contraindication to stopping smoking but the illness and its treatment need to be monitored carefully during smoking cessation<sup>6</sup>.



**32%**  
of people with mental illness smoke cigarettes



### Benefits of quitting

**A healthier and longer life** – Compared to the general community, people with a mental illness are more likely to smoke and have other risk factors leading to cardiovascular disease<sup>7</sup>, complications of diabetes, cancers and respiratory illnesses. People with mental illnesses are less likely to be treated for their physical health conditions leading to a poorer quality of life<sup>8</sup>.

**Improved income** – Smokers with a mental illness spend a large proportion of their income on cigarettes<sup>9</sup>. Quitting smoking means more money for necessities such as rent and bills and ordinary treats such as eating out and movies.

**Breaking down barriers to socialising** – With most public and work places now smoke free, being a smoker can increase barriers to socialising or getting work.

**Less stress, better coping** – Smokers have more stress because they are constantly dealing with the anxiety that cravings cause. Research has shown that three to six months after quitting, ex-smokers have less stress and anxiety than before they quit<sup>1</sup>. Quitting can provide an opportunity to develop new and effective coping strategies rather than smoking.

Studies have shown that many people with a mental illness want to quit and that smoking causes, rather than relieves stress in the long-term<sup>1</sup>.

### Helping someone with a mental illness to quit

• People with a mental illness face specific issues when they try to quit smoking.

• Potential interactions between smoking and medication mean that people need to be informed about the possible consequences of quitting on their mental health<sup>10</sup>.

• It is important that a range of approaches is considered including the role of nicotine replacement therapy (NRT) and other quitting medications, group and individual counselling and self-help materials<sup>11</sup>.

• NRT is safe and effective for people with a mental illness<sup>12</sup>.

• Sometimes withdrawal symptoms can be mistaken for symptoms of mental illness. It's important for health professionals to consider a smoker's history of depression, their ability to deal with stress, and the local availability of support for people who are trying to quit.

• An exacerbation of depressive symptoms may be brought on by quitting. Appropriate coping strategies and support must be provided if this happens. Some people may experience a relapse in their mental illness but others will not<sup>1</sup>.

• As a health professional, you can offer support by:

- pointing out the positive health, financial and social benefits of quitting
- being pro-active and asking about smoking and its varied costs
- making quietly persistent suggestions about quitting and offering support

**EVERY CIGARETTE YOU ~~DON'T~~ SMOKE IS DOING YOU GOOD**

## TOOL 8

### Clozapine, olanzapine and smoking cessation



- Chemicals in tobacco smoke (polycyclic aromatic hydrocarbons) accelerate the metabolism of clozapine and olanzapine (by inducing the cytochrome enzyme CYP1A2) lowering drug blood levels.
- As a result, blood levels of clozapine and olanzapine can rise significantly within days of quitting or reducing cigarette consumption to <7 cigarettes daily.
- Clozapine and olanzapine have a narrow therapeutic index and increases in blood levels can cause serious toxic effects.
- **Patients need monitoring for increased sedation or other side effects as well as more regular testing of clozapine levels after cessation or reduction.**
- Urgent dose adjustments in the first few days after quitting may be required. Steady state blood levels are achieved after about a week.
- **Nicotine replacement therapy use DOES NOT affect clozapine or olanzapine levels.**

**ON PRESENTATION:**  
All smokers currently prescribed clozapine or olanzapine

1. Assess clinically.
2. Record current clozapine or olanzapine dosage in notes.
3. Assess compliance with clozapine or olanzapine treatment.
4. Establish smoking intention while admitted (smoking cessation or continued smoking – strongly encourage cessation)
5. Test clozapine level on admission and record in notes.

**Consumer ceases smoking or reduces (<7 per day) when admitted**

**Known to be taking clozapine or olanzapine regularly**  
Consider a dose reduction of:

- 30% for olanzapine
- 50% for clozapine

**Not taking clozapine or olanzapine regularly or stopped prior to admission**  
• re-start clozapine or olanzapine at a lower reduced dose than was prescribed when consumer was smoking

**If a current smoker, or recent quitter, assess for nicotine dependence and provide NRT if clinically appropriate.**

Use Tools 1-7 to assist in managing and monitoring nicotine dependence.

Use Tool 10 before discharge to ensure consumer is assisted to remain smoke-free after discharge.

**Clinically monitor for side effects of higher serum levels including:**

- sedation
- hypersalivation
- hypotension
- seizures or other neurological effects
- akathisia and prolonged QTc interval.

**Test clozapine levels regularly**

**Adjust dosage as appropriate.**

**Note:** There is no 'right' blood level of clozapine or olanzapine; the aim is symptom control without toxicity. At all times, clinical assessment overrides suggestions made in this guide

## PRESCRIBING FOR TOBACCO DEPENDENCE

Tobacco use remains the leading preventable cause of illness and death in our society. Smokers who quit reduce their risk of many diseases, including cardiovascular disease, respiratory disease and cancer. Quitting increases life expectancy. Some smokers make many attempts to quit before they succeed.

### TREATMENT

#### NICOTINE REPLACEMENT THERAPY (NRT)\*

PATCH

GUM / LOZENGE

INHALER

MOUTH SPRAY

**COMBINATION NRT**  
A combination of nicotine patch and a faster acting inhaled form along with behavioural support is more effective than monotherapy and should be considered the standard treatment

PATCH + GUM

PATCH + LOZENGE

PATCH + INHALER

PATCH + MOUTH SPRAY

**SET QUIT DATE: SAME DAY AS STARTING NRT**

**KEY MESSAGES:**

- Quit rate is double placebo
- NRT is available to purchase over the counter
- NRT is available for medical card holders
- NRT should be prescribed to all patients ON ADMISSION to hospital, including day cases, to help them manage nicotine withdrawal symptoms

#### VARENICLINE (CHAMPIX)\*

**SET QUIT DATE: 7-14 DAYS AFTER STARTING VARENICLINE**

**KEY MESSAGES:**

- This is the most effective medication; quit rate is triple placebo
- Available only on prescription
- There is no good evidence that combining NRT with Varenicline improves success rates

#### BUPROPION (ZYBAN)\*

**SET QUIT DATE: 7-10 DAYS AFTER STARTING BUPROPION**

**KEY MESSAGES:**

- Quit rate is double placebo
- Available only on prescription
- There is no good evidence that combining NRT with Bupropion improves success rates

**We're here to help!**

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**\* for comprehensive information on these medications consult your prescribing manual.**

Acknowledgement. Developed with the assistance of Dr Andy McEwen, Executive Director, National Centre for Smoking Cessation and Training, www.ncscot.co.uk

Table: Effect Of Smoking Cessation On Certain Drugs

Adapted from Taylor, D., Paton, C., Kapur, S. Maudsley Prescribing Guidelines 11th Edition, West sussex: John Wiley & Sons; 2012

DRUG	EFFECT ON SMOKING	ACTION TO BE TAKEN ON STOPPING SMOKING	ACTION TO BE TAKEN ON (RE) STARTING SMOKING
BENZODIAZAPINES	Plasma levels reduced by 0 –50%	Monitor closely. Consider reducing dose by up to 25% over one week	Monitor closely. Consider reintroducing previous smoking dose
CARBAMAZEPINE	Unclear	Monitor for changes in severity of side effects	Monitor plasma levels
<b>ANTIDEPRESSANTS</b>			
DULOXETINE	Plasma levels may be reduced by up to 50%	Monitor closely. Dose may be reduced	Consider re introducing previous smoking dose
FLUVOXAMINE	Plasma levels may be reduced by 30%	Monitor closely, dose may need to be reduced	Dose may need to be increased to previous smoking dose
MIRTAZIPINE	Unclear but effect probably minimal	Monitor	Monitor
TRICYCLIC (antidepressants)	Plasma levels reduced by 20 – 50%	Monitor closely. Consider reducing dose by 10 –25% over one week. Consider further dose reductions	Monitor closely. Consider restarting previous smoking dose
CHLORPROMAZINE	Plasma levels reduced. Varied estimates of exact effect	Monitor closely, consider dose reduction	Monitor closely, consider restarting previous dose (when client was a smoker)
CLOZAPINE	Reduces plasma levels by up to 50%. May be a greater reduction in people taking Valproate	Take plasma level before stopping. On stopping, reduce dose gradually (over a week) by 25%. Repeat plasma level 1 week after stopping	Take plasma level before resuming smoking (anticipate this may happen soon after discharge). Increase dose to previous dose (when client was a smoker)
FLUPHENAZINE	Reduces plasma levels by up to 50%. May be a greater reduction in people taking Valproate	On stopping, reduce dose by 25%. Monitor for up to 8 weeks.	On restarting, increase dose to previous level
HALOPERIDOL	Reduces plasma levels by around 20%	Reduce dose by around 10% and continue to monitor	On restarting, increase dose to previous level
OLANZAPINE	Reduces plasma levels by up to 50%	Take plasma level before stopping. On stopping, reduce dose by 25%. After 1 week, repeat plasma level, consider further reductions	Take plasma level before resuming smoking (anticipate this may happen soon after discharge). Increase dose to previous dose (when client was a smoker)

Drug	Practical management
<b>Psychiatric treatments which significantly interact with tobacco consumption</b>	
Clozapine	The levels increase gradually after smoking cessation (1.5 times in 2-4 weeks). <b>1. Stable patients, smokers of &gt;1 pack a day who quit smoking with a long-term abstinence plan (voluntary cessation):</b> Assess reduction of the dose to 60-70% of the initial amount (e. g. 700 mg dose with tobacco = 425 mg without tobacco) in 2-4 weeks. <b>2. Patients admitted with acute disorder and brief admission to a centre where smoking is not permitted:</b> Monitor possible adverse effects (hypersalivation, sedation, hypotension, tachycardia, seizures, agitation). Measure serum levels on admission and after 2 weeks, or earlier if adverse effects occur. <b>3. Stabilised non-smoking patients who resume / take up smoking &gt;1 pack a day (e. g. when discharged from a smoke-free hospital):</b> Consider increasing the dose progressively to 1.5 times in 2-4 weeks and monitor levels and response.
	Blood drug levels increase after cessation of smoking (1.5-5 times increase between 4-10 days). The average correction factor of the dose to quit smoking is = 0.6-0.7 times. Widest therapeutic range. <b>1. Stable patients, smokers of &gt; 1 pack a day who quit smoking with a long-term abstinence plan (voluntary cessation):</b> Assess reduction of the dose to 60-70% of the initial amount (e. g. 30 mg dose/day with tobacco = 20 mg without tobacco) in 4 days; Reduce the dose/day to 10% for 4 days (e. g. dose of 30 to 27-24-22-20). <b>2. Patients with acute disorder admitted in a smoke-free ward (short-term), when it is often necessary to increase the dose or start the treatment:</b> Monitor symptoms of intoxication and adverse effects (extrapyramidal signs and akathisia). <b>3. Stabilised non-smoking patients who resume / take up smoking &gt;1 pack a day (e. g. when discharged from a smoke-free hospital):</b> Consider increasing the dose progressively to 1.5 times in 2 weeks and monitor the levels and response.
	<b>Other substances</b>
Caffeine	The concentrations of caffeine, when one does not smoke, are 3-4 times higher than those found when one smokes. The cessation of caffeine consumption produces decreased levels of certain medications (if there are changes in the dose of coffee of more than 1-3 cups a day). <b>For example:</b> In clozapine the correction factor of the dose is 1.6 times if coffee consumption is ceased. The cessation of smoking in a hospital admission is partially offset by the cessation of caffeine consumption.
Interaction of tobacco / caffeine / lithium	Caffeine stimulates the excretion of lithium. <b>Example 1:</b> Outpatients who quit smoking but keep drinking coffee: cessation of smoking – increase in levels of caffeine = potential increase in lithium elimination = risk of reducing lithemias on quitting smoking = monitor the levels. <b>Example 2:</b> Hospitalised patients who simultaneously quit smoking and coffee: potential mutual offset of effect.



People with severe mental disorders die about 25 years earlier than the general population, mainly due to diseases caused or aggravated by tobacco use.

For the best results in aiding smoking cessation, it is advisable to combine psychological (cognitive-behavioral and motivational strategies) and pharmacological (NRT, Varenicline and Bupropion) interventions.

More intensive interventions and more prolonged follow-up (up to one year) may be necessary.

First-line drugs for the treatment of tobacco use			
Drug	Dosage	Main side effects	Contraindications
NRT (Nicotine replacement therapy)	Treatment of at least three months. Maximum efficacy with combined therapy; transdermal plus oral.	Patches: Insomnia, headache, skin reactions. Gums and lozenges: Insomnia, headache, nausea, dyspepsia and diarrhoea.	All contraindications are relative (risk/benefit assessment): recent myocardial infarction, unstable angina, cardiac arrhythmias, recent myocardial infarction, severe hypertension, pregnancy, lactation, digestive pathology.
Varenicline	Start of treatment one week before cessation. Staggered onset: 0.5 mg once a day (first 3 days), 0.5 mg twice a day (the following 4 days), to 2 doses of 1mg/day (at 12 hour intervals).	Nausea, flatulence, sleep disturbances (disorders). It is necessary to monitor the mental disorder.	Hypersensitivity to its components. Precautions in patients with severe kidney failure (halve the dose).
Bupropion	Treatment begins one or two weeks before smoking cessation. Staggered onset: typically 150 mg/day in the first week rising to two doses of 150 mg/day.	Difficulty sleeping, dry mouth, headache, nausea and skin reactions. It is necessary to monitor the mental disorder.	People at risk of seizures: epilepsy, brain tumors, head injuries, treatments with drugs that lower the seizure threshold (antidepressant, antipsychotics, theophylline, tramadol, systemic corticosteroids, antimalarials, quinolones, amantadine, levodopa, sedative antihistamines, hypersensitivity to the drug, pregnancy, history of anorexia or bulimia, bipolar disorder, severe liver cirrhosis, patients with alcohol dependence or treatment for addiction to alcohol or benzodiazepines.

## How can I help my patients quit smoking?

A brief guide to clinical intervention for patients with mental disorders

## Evaluation

### Evaluation

Asses the nicotine dependence level\*. Assess the willingness to quit.

### Record

Clinical history of smoking: pattern of consumption, quit attempts, methods used, causes of relapse.

### \*Heaviness of Smoking Index:

- How many cigarettes/day do you usually smoke?
  - 10 or less
  - 11 to 20
  - 21 to 30
  - 31 or more
- How soon after you wake up do you smoke your first cigarette?
  - Within 5 minutes
  - 6 to 30 minutes
  - 31 to 60 minutes
  - More than 60 minutes

0 to 2: low dependence / 3 to 4: moderate dependence / 5 to 6: high dependence

## Intervention

### Awareness-raising

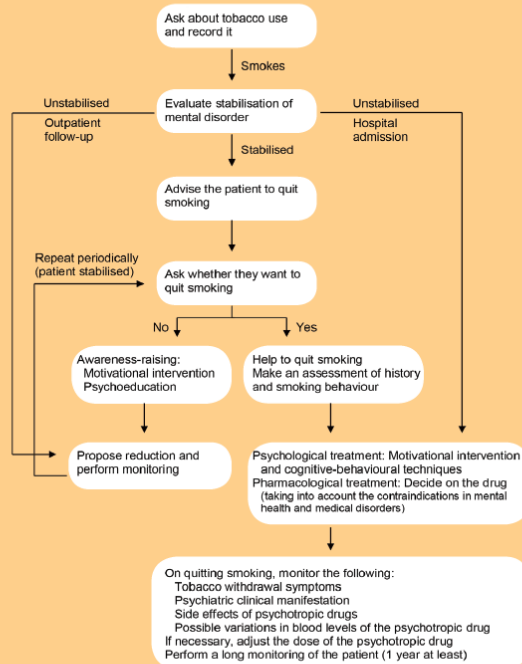
- “For what reason would you quit smoking?”
- “Do you see any risk or negative consequence on you in smoking?”
- “What advantages would you have if you quit smoking?”
- “What worries you about quitting smoking?”

### Reduction

- Reduction of the number of cigarettes by 50%.
- Establish a reduction of the CO exhaled.
- How to reduce the consumption?
  - Hierarchical reduction: give up the more dispensable cigarettes.
  - Increase in time between cigarettes.
  - Set smoke-free areas to not smoke (e. g. in the car, at home, etc.).

### Cessation

- Suppression of tobacco use with psychological and pharmacological treatment.



Download the guide on the web: [www.xchsf.cat](http://www.xchsf.cat)

### Indicative criteria to start NRT

Number cig./day	Time from waking to the first cigarette of the day	Recommended NRT
≤ 14	> 60 minutes	- Dispense gums or lozenges. - Small patch option: 7 mg (24 h) / Other equivalent.
15 - 19	30 - 60 minutes	- Medium patch: 14 mg (24 h) / 10 mg (16 h) / Other equivalent. - Supplement with gums or lozenges.
≥ 20	< 30 minutes	- Large patch: 21 mg (24 h) / 15 mg (16 h) / Other equivalent. - Supplement with gums or lozenges.

### Hospital admission: management of the NRT during permits

Tobacco consumption during permits	Situation	Action
The patient will not smoke.	Good awareness of the disease, good treatment compliance, good motivational level.	Leave the same dose of NRT patches and gums/lozenges.
The patient will smoke less than before admission.	Reduction to approximately half the number of cigarettes.	Reduce the dose of NRT.
The patient will smoke the same amount as before admission.		Remove the NRT patch.

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An aerial photograph of Berlin, Germany, showing a wide river (Spree) with a boat, a bridge with traffic, and a dense urban landscape. The prominent TV Tower (Fernsehturm) stands tall in the background under a clear blue sky. A large red curved graphic element is visible in the top-left corner.

**Vielen Dank für Ihre Aufmerksamkeit.**