

Innovations, support for smokers seeking to quit, and back to the future...

A TIP FROM A FORMER SMOKER

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In 1996 The Agency for Health Care Policy and Research (AHCPR) published the Smoking Cessation: Clinical Practice Guideline. Based on the results of meta-analyses and expert opinion, the guideline Identifies interventions for primary care clinicians and smoking cessation providers. The Public Health Service facilitated updates in 2000 and 2008.

1996 Clinical Practice Guidelines for Health Care Providers

1998 Web-Based Cessation Support

QuitNet (MeYou Health, formerly Healthways) offered the first members-based website for smokers. Other personalized stop-smoking sites followed, including BecomeAnEx (Truth Initiative®), Freedom from Smoking Plus (American Lung Association), Quit for Life (American Cancer Society) and others.



For most sites, users register using a brief assessment of tobacco use. Most sites offer tools like

quit guides, quit calendars, savings calculators, messaging, progress tracking, and tailoring. Many offer community features to communicate with other users and may include forums, chat rooms, or support from a tobacco treatment counselor. Many offer smartphone application versions of their services and tie into social media.

1988 - Present: Low Nicotine Cigarettes



In 1988 Philip Morris launched Next, Merit, and Benson and Hedges Di-Nic Cigarettes in 3 test markets. In the 1980s cigarette manufacturers began investigating genetic bioengineering of tobacco plants as a way to control nicotine delivery. SPECTRUM[®] (below) features cigarettes with eight different levels of nicotine content. Strictly for research purposes, Spectrum is not a commercially available cigarette

Quest, manufactured by Vector tobacco using genetically altered tobacco plants was available in three versions: Quest 1, Quest 2, and Quest 3. Each version of the product contained a different level of nicotine.



of SOUTH CAROLINA

2016, 22nd Century Group Inc., launched MAGIC 0, a very low nicotine cigarette in Europe.



Cultivating a novel way to quit smoking

BUSINESS TODAY

THE BUFFALO NEWS

Clarence company growing tobacco with 95% less nicotine By DAVID BOBINSON MEND BLIDDERED REPORTS

corph Pandolfino wants to help ookers muit - by letting then give as much as they want andolfino's company, 22nd Ce mce. is develocit tically modified type of tob at has 95 percent less ricotin called "light" cigarettes. The idea is that, by desstically sing plootine levels in the cig s, smokers who want to quit will able to continue smoking as much

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1990 Tobacco industry stop smoking public relations

In the late 1990s, cigarette makers began offering limited cessation assistance to smokers from their websites directing visitors to government-sponsored stop smoking resources.

In 2000, Philip Morris created a stopsmoking program, "Quit Assist." At the same time, Philip Morris and other companies continued to challenge policies that discourage smoking.





2003 Hon Lik and the Modern E-Cigarette

Chinese pharmacist, Hon Lik, seeking to quit smoking after his father's death from lung cancer, patented a device to vaporize a liquid containing nicotine rather than smoke cigarettes. His goal was to create a

mechanism that would deliver nicotine more efficiently than the nicotine patch and create a vapor similar to cigarette smoke. The first e-cigarette, that employed piezoelectric technology, was manufactured in China a year after filing the patents. The company Lik worked for, Golden Dragon Holdings, became Runyan (Imperial Tobacco). Runyan marketed e-device variations (e-cigars, e-pipes, and later ecigarettes) in China and then world-wide. Most Current vaporizers do not employ piezoelectric technology that was first patented by Lik.



A prototype of Hon Lik's vaporizer



2003 Nicotine Patch Giveaway – Smokers Want to Quit

Before NY City's comprehensive smoking ban in bars and restaurants in April of 2003, city health officials offered a free six-week supply of nicotine patches to residents who want to quit smoking and who reached out to the NY State Smokers' Quitline for support. '

Over 377,000 calls were made to the Quitline by residents, jamming phone lines. Over 35,334 people signed up for the program with a 35% overall quit rate.





2005 Nicotine Vaccines

Nabi Biopharmaceuticals began the first phase of trials for its nicotine vaccine, NicVAX.

An efficient smoking cessation vaccine would generate antibodies that sequester nicotine in the blood and prevent its access to the brain. Vaccines have great potential for treating nicotine addiction and for relapse prevention.





2006 Pfizer releases Varenicline, Chantix or Champix

The use of Cytisus plant and Cystine as a cessation aid in Europe led to the development of varenicline at Pfizer. Varenicline, or trade names, Chantix and Champix, is currently the most effective medication for tobacco cessation.

Smokers were nearly three times more likely to quit on varenicline than with a placebo treatment. Varenicline can reduce the feelings of craving and withdrawal caused by smoking.





2010 Affordable Care Act (ACA)

The comprehensive health care reform law enacted in March 2010 made affordable health insurance available to more people including smokers. In 2010 the law required insurance plans to cover preventive services, including tobacco cessation.

All Medicaid programs were required to cover tobacco cessation for pregnant women. By 2014 Tobacco cessation medications could no longer be excluded from state Medicaid coverage.

In 2018 new regulations took effect to expand plans that are not required to cover preventive services or smoking cessation interventions.





2006 E-Cigarettes Introduced to Europe and US





The NEW ENGLAND JOURNAL of MEDICINE

E-Cigarette: vs. NRT

ORIGINAL ARTICLE

A Randomized Trial of E-Cigarettes versus Nicotine-Replacement Therapy

Peter Hajek, Ph.D., Anna Phillips-Waller, B.Sc., Dunja Przulj, Ph.D., Francesca Pesola, Ph.D., Katie Myers Smith, D.Psych., Natalie Bisal, M.Sc., Jinshuo Li, M.Phil., Steve Parrott, M.Sc., Peter Sasieni, Ph.D., Lynne Dawkins, Ph.D., Louise Ross, Maciej Goniewicz, Ph.D., Pharm.D., Qi Wu, M.Sc., and Hayden J. McRobbie, Ph.D.

CONCLUSIONS

OUTH CAROLINA

E-cigarettes were more effective for smoking cessation than nicotine-replacement therapy, when both products were accompanied by behavioral support. (Funded by the National Institute for Health Research and Cancer Research UK; Current Controlled Trials number, ISRCTN60477608.)

2007 Smart Phones and Apps

The advent of the Apple iPhone in 2007 created an opportunity for the development of mobile smoking cessation applications.

While there are hundreds of stop smoking applications based on various cessation methods, evidence varies on their effectiveness and engagement.





2008 Clinical Practice Guidelines Update

US Public Health Service (PHS) Clinical Practice Guideline, Treating Tobacco Use and Dependence were adopted, providing evidence-based guidelines for clinicians and healthcare systems to effectively treat the deadly chronic disease of tobacco addiction. More and more health care providers are being called upon to provide cessation treatments. Updated Guidelines advocate for more resources for training health care providers in tobacco cessation counseling, pharmacotherapies, referrals, and treating tobacco addiction as a chronic disease.





2011 Litigation

In 2011, the judgment in a Louisiana class action lawsuit, Scott v. American Tobacco Company, ordered American tobacco Co. to fund a courtsupervised 10-year smoking cessation program to benefit more than 200,000 Louisiana smokers who are members of the class (the "Scott Class"). The trust covers four types of servicés: telephone helplines, doctor visits for services to help smokers quit, group and individual counseling to help smokers quit, coverage for nicotine replacement therapy, and related medications





2012 CDC Tips Campaign

The Centers for Disease Control launched the Tips from Former Smokers TM campaign that features real people suffering as a result of smoking and exposure to secondhand smoke. The TIPS website offers stop-smoking support and resources for smokers.





The Return of Heat Not Burn Old Technology Makes A Comeback

Heated products use an electric element (Accord), or a carbon tipped heating element (Premier and Eclipse) to release the nicotine. Additives such as polypropylene glycol are used to create a visible vapor. It is unclear whether heat not burn products in the market reduces cessation or increase initiation.

Premier never achieved popularity, as smokers complained about a charcoal-like aftertaste and it was difficult to light. It was taken off the market in 1989, less than a year after its release.





Marketing Hype or Lifesaver

Eclipse, 1996, Like its predecessor Premier, heated the tobacco instead of burning it. Like Premier, one lights the carbon heat source, which supplies heat to the tobacco. Glass particles contaminated the filter tip of the Eclipse cigarette. Eclipse was removed from most test markets. In 2015 RJ Reynold tested and re-branded a version of Eclipse called Revo. Reynolds (BAT) and Philip Morris offer carbon heat source - heat not burn cigarettes.

Accord, 1999, Heat Bar, 2004, and now IQOS, 2017, heat a specially designed cigarette rather than burn it.

British American Tobacco is selling heat not burn products, glo and glo iFUSE.











2015 JUUL Labs patents nicotine salt formula

JUUL Labs, Inc., maker of the JUUL e-cigarette uses nicotine salts instead of free-based nicotine liquids that's used in most other e-liquid. Released in 2017, with a unique design and high-nicotine liquid "Pods," JUUL was engineered for the naive novice user and became the the most popular e-cigarette on the market, attracting youth to its brand as well as a 12billion dollar investment by Philip Morris. Facing criticism of marketing to youth, JUUL discontinued its popular mango flavored Pods and directed some of its advertising to appeal to smokers seeking to quit cigarette use.



WARNING: This product contains nicotine. Nicotine is an addictive chemical.





New Heat Not Burn

In 2017 Philip Morris tested its IQOS heat not burn smoking device in Japan and Europe. It is now available in the US. Unlike previous heat not burn products (Accord and Heatbar), IQOS also contains technology that tracks puffing and use. Philip Morris claims that "We know quitting is the best option, but we want to provide better alternatives to smoking for those who don't quit. Through heated tobacco and precision vaping products that leverage state-of-the-art technology and scientific substantiation..."





Alternative Nicotine Products

Zyn, On, Omni, and others smoke-free products are made with nicotine salts and no tobacco leaf material. They claim to be "spit-free" and "tobacco-free." The REVEL Nicotine Lozenges by RJ Reynolds are sold as "an alternative to traditional combustible and smokeless tobacco products."

Several brands of nicotine toothpicks are offered as an alternative to smoking. Whether these products aid in quitting smoking, oral tobacco, or just short-term use, remains to be seen.









Repetitive Transcranial Magnetic Stimulation (rTMS)

Since about 1985 Repetitive transcranial magnetic stimulation (rTMS) has been used to treat depression and anxiety. The therapy involves using a magnet to target and stimulate certain areas of the brain rTMS controls nerve cell activity, increases blood flow in the brain, and improves cognitive function. rTMS shows promise as part of a long term treatment of tobacco use in promoting smoking cessation and preventing relapse.





2020 Publication of Smoking Cessation: A Report of the Surgeon General:

Examines the effectiveness of smoking cessation tools and resources

Reviews the health effects of smoking and catalogues the improvements to health that can occur when smokers quit

Highlights important new data on populations in which the prevalence of smoking is high and quit rates are low

Identifies gaps in the availability and utilization of programs, policies, and resources that can improve cessation rates and help smokers quit



Opportunity or Trap? Cigarette companies say they want to change...

Philip Morris International

Designing a Smoke-Free Future

How long will the world's leading cigarette company be cigarette business?

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