



# *SMOKING CESSATION*

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DEATH *IN* OLD AGE IS  
INEVITABLE,

BUT DEATH *BEFORE* OLD AGE  
IS NOT

*Sir Richard Peto, 2006*



# *THE RISK IS BIG*

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- ★ ABOUT HALF OF SMOKERS ARE KILLED
- ★ THOSE KILLED IN MIDDLE AGE LOSE 10, 20, 30 OR MORE GODD YEARS

[www.deathsfromsmoking.net](http://www.deathsfromsmoking.net)



# *STOPPING SMOKING WORKS*

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- ★ EVEN IN EARLY MIDDLE AGE (40y) THOSE WHO STOP, AVOID MOST OF THEIR RISK OF BEING KILLED BY TOBACCO
- ★ STOPPING BEFORE MIDDLE AGE WORKS EVEN BETTER





# *IMMEDIATE BENEFITS*

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★ **WITHIN 20 - 30 MINUTES:**



★ **THE BLOOD PRESURE AND HEART RATE DROP TO THE REST VALUES**



★ **THE SKIN TEMPERATURE (LEGS) RAISES BY 2° C**



## *SHORT-TERM BENEFITS*

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★ **WITHIN 6 – 8 HOURS**

★ COHb LEVELS WILL DROP TO THE NORMAL VALUES (< 1%)

★ **WITHIN 72 HOURS**

★ PULMONARY FUNCTIONS WILL IMPROVE (1sec forced expiration)





## *MIDDLE-TERM BENEFITS*

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★ **WITHIN 2 MONTHS**

★ MALE SPERM DAMAGES CAUSED BY SMOKING WILL BE REPAIRED

★ **WITHIN THE 1st TRIMESTER**

★ THE RISK OF PREGNANCY PROBLEMS AND FETAL BODY POOR DEVELOPMENT WILL DECREASE





## *MIDDLE-TERM BENEFITS*

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- ★ **WITHIN 1st YEAR**
- ★ THE BLOOD LIPID PROFILE WILL BE IMPROVED,
- ★ THE PARAMETERS OF HEMO-COAGULATION WILL BE IMPROVED
- ★ THE RISK OF AC. CARDIAC ISCHEMY and STROKE WILL BE DROPPED





# *LONG-TERM BENEFITS*

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- ★ **WITHIN 5 YEARS**
- ★ **THE RISK OF CVD DEATH WILL BE SIMILAR AS FOR NEVER-SMOKERS**
- ★ **THE RISK OF SMOKING-RELATED CANCERS WILL START THE DECREASED TRENDS**







## *LONG-TERM BENEFITS*

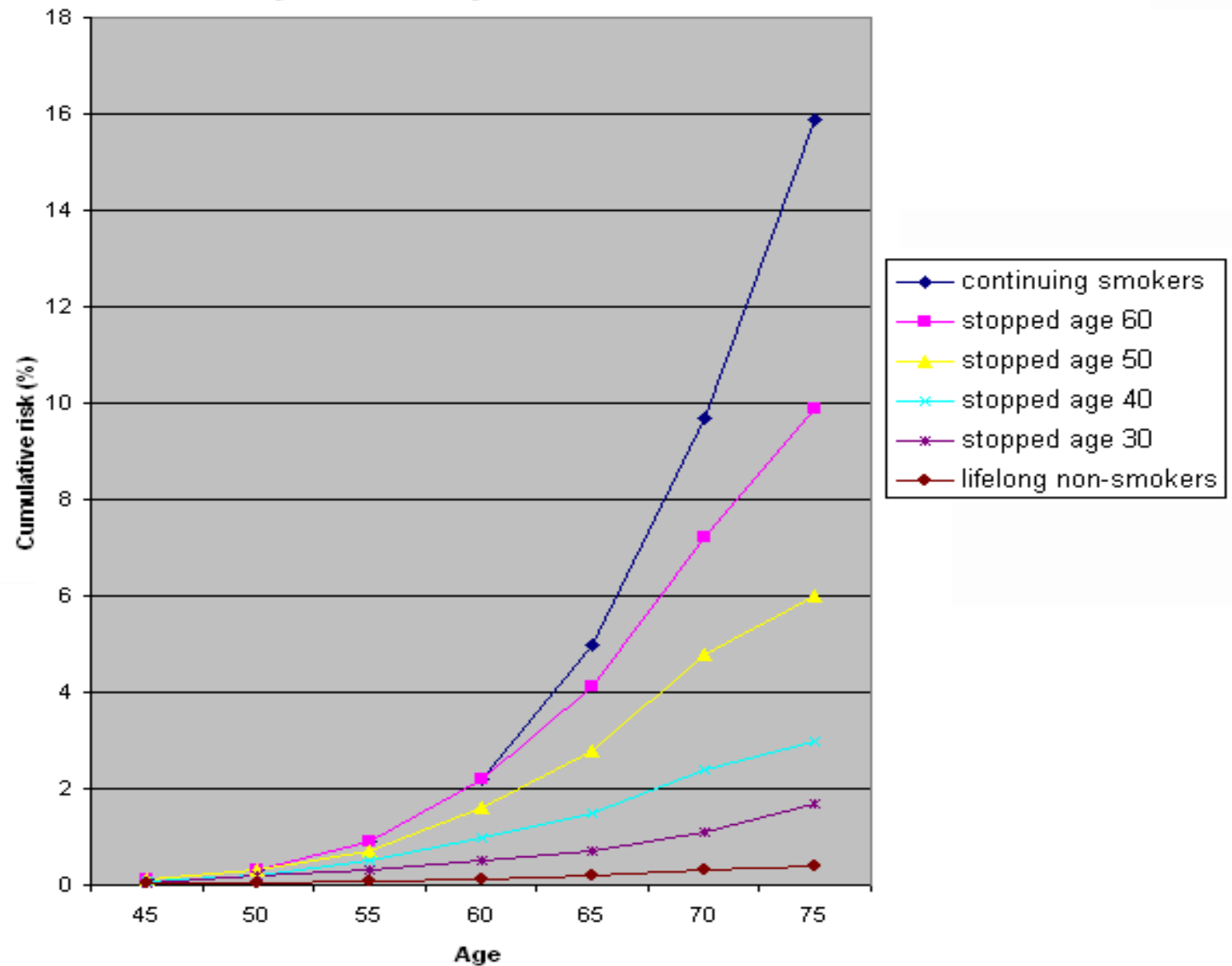
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- ★ **WITHIN 10 – 20 YEARS**
- ★ **THE RISKS OF SMOKING-RELATED CANCER'S DEATH WILL BE SUBSTANTIALLY DECREASED, ALMOST TO THE LEVELS FOR NEVER SMOKERS**





**Figure 3. Effects of stopping smoking at various ages on the cumulative risk (%) of death from lung cancer by age 75, calculated by combining results from the 1990 study with mortality rates for men in the UK in 1990**





# *CONCLUSIONS*

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- ★ THE RISK IS BIG
- ★ STOPPING SMOKING WORKS:  
EFFECTIVE SUPPORT OF SMOKING  
CESSATION WILL CHANGE THE  
DEATH EPIDEMY WITHIN 10-20  
YEARS





*SO...*

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★ WHY SOME PEOPLE TAKE TOBACCO LEAVES, ROLL THEM IN PAPER, LIGH THEM and

★ INHALE THE DANGEROUS SMOKE

★ ???





# *BECAUSE*

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★ SMOKING IS HIGHLY DEPENDENT DISEASE – Dg. F 17



★ BOTH PHARMACOLOGIC/PHYSICAL AND BEHAVIORAL ADDICTION



★ DEVELOPED MOSTLY DURING CHILDHOOD



# *MECHANISMS OF ACTION*

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★ ACTIVATION OF „NICOTINIC“  
RECEPTORS



★ RELEASE OF NEUROTRANSMITTERS  
**DOPAMINE, SEROTONINE**



★ ACTIVATION OF SYMPATIC SYSTÉM  
and SUPRARENAL GLANDS =>  
**ADRENALINE, NORADRENALINE,  
ACTH**



# *SUBJECTIVE PERCEPTION*

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★ WELL BEING

★ COPING THE STRESS

★ SHORT-TIME INCREASING OF THE PERFORMANCE





# *RELEASE OF DOPAMINE*

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★ INITIATE MANY DAILY-LIFE  
EVENTS:

- SEX, FOOD,
- SUCCESS
- FRIENDLY ENVIRONMENT
- CHILDREN'S BEHAVIOR,
- ....







# *SMOKERS ARE:*

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★ AT THE BEGINNING:

★ UNHAPPY, UNSUCCESSFUL PEOPLE

★ LAZY PEOPLE



★ LATER ON:

★ DEPENDENT PEOPLE





# *CRITERIA OF ADDICTION*

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★ USING THE DRUG LONGER THAN EXPECTED



★ USING THE DRUG DESPITE OF HEALTH PROBLEMS



★ THE MOST TIME A DAY IS SPENT BY EFFORT TO OBTAIN THE DRUG /or BY USING THE DRUG



## *CRITERIA - continue*

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★ USER NEGLECTS SOME ACTIVITIES WHERE USING OF DRUG IS BANNED



★ SHORT-TERM ABSTINENCE RESULTS TO THE REPEATEDLY OCCURED RELAPSE





# *TOLERABILITY*

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- ★ THE SAME DOSE CAUSES LOWER EFFECTS =
- ★ FOR THE SAME EFFECTS THE INCREASED DOSE IS NECESSARY





# *WITHDRAWAL SYMPTOMS* (WS)

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★ EXCITABILITY, NERVOUS,  
STRESSED



★ ATTENTION DISABILITY

★ COGNITIVE PROBLEMS

★ DEPRESSION



★ ANXIETY



# *WITHDRAWAL SYMPTOMS*

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- ★ POORER WEIGHT CONTROL ->  
OVERWEIGHT
- ★ EXPECTORATION
- ★ CONSTIPATION





# *WS – TIMING*

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★ WITHIN 2 HOURS AFTER THE LAST CIGARETTE



★ WAVES WITH DIFFERENT FREQUENCY AND POWERTY



★ SEVERAL DAYS – WEEKS – MONTHS - YEARS



# *WS - CAUSES*

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★ LACK OF NICOTINE

★ LACK OF SOCIAL CONTACTS

★ CRAVING FOR SMOKING



★ INCREASED FOOD INTAKE

★ DECREASED BASAL METABOLISM







# *WITHDRAWAL SYMPTOMS*

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★ ARE NOT HARMFUL FOR HEALTH



★ ARE THE MANIFESTATION OF THE DRUG ELIMINATION



★ ARE THE MOST FREQUENT CAUSE OF RELAPS



# *WHAT TO DO?*

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## ★ KEEPING SMOKERS' RIGHTS:

- TO BE INFORMED ABOUT HAZARD
- TO BE AVOIDED FROM RISK SITUATIONS
- TO BE MOTIVATED TO DECISION
- TO BE SUPPORTED IN THEIR EFFORT TO STOP SMOKE





# *WHAT IS THE BEST WAY?*

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## ★ THE „5A“ PROGRAMME:

1. ASK
2. ADVICE
3. ASSESS
4. ASSIST
5. ARRANGE FOLLOW-UP





# *1. ASK EVERY PATIENT:*

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- ★ DO YOU SMOKE?
- ★ HOW MUCH CIGARETTES DAILY?
- ★ HOW MANY YEARS?
- ★ AT WHICH AGE DID YOU START?
- ★ AT WHICH MORNING TIME DO YOU LIGHT YOUR FIRST CIGARETTE?
- ★ WOULD YOU LIKE TO STOP?
- ★ HAVE YOU SOME EXPERIENCES WITH STOPPING?





# *1A: CONGRATULATION*

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★ TO EVERYBODY WHO:

★ HAS NEVER SMOKE,

★ HAS STOPPED TO SMOKE:

- ASK HIM/HER ABOUT PROBLEMS,
- SUPPORT HIS/HER EFFORT TO BE NON-SMOKER





## 2. *ADVICE*

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★ TO EVERY SMOKER TO STOP, because

★ FAMILY HISTORY (HEREDITARY VULNERABILITY)



★ SMOKER'S HEALTH HISTORY

★ CURRENT HEALTH STATUS

★ SOCIAL IMAGE, MODEL ROLE



★ HIS/HER CHILDREN HEALTH



# *ADVICE IS ESSENTIAL*

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★ PEOPLE KNOW THE SMOKING HAZARD IN GENERAL



★ PEOPLE FEEL PERSONAL IMMUNITY AGAINST THE DAMAGES



★ SUCH FEELINGS ARE FALSE, ERROR AND VERY DANGEROUS



# *SUPPORT OF ADVICE*

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★ USE THE BOOKLETS, LEAFLETS, PICTURES, ...



★ FOR TARGET POPULATION OF SMOKERS (CHILDREN, TEENAGERS, PREGNANT WOMEN, WORKERS, MINORS, SENIORS...)



★ RECOMMEND THE SPECIAL OFFICE





### *3. ASSESS THE LEVEL OF DEPENDENCE*

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★ **FAGERSTROM'S QUESTIONNAIRE:**

★ **6 QUESTIONS**

★ **MAXIMUM 10 „BAD POINTS“**



★ **4 LEVELS OF DEPENDENCE**

★ **LOST OF AUTONOMY**



★ **- THINKING ABOUT TREATMENT**



## 4. ASSIST WITH THE START

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- ★ HELP TO CHOICE THE STRONGEST MOTIVE
- ★ INICIATE TO CHOICE A DAY „D“
- ★ EVALUATE THE RISK SITUATIONS:  
„TO KILL TIME“, „PLEASURE“,  
„STRESS“





## *ASSIST - continue*

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- ★ CHOICE THE REPLACEMENT IN THE RISK SITUATIONS: WHAT TO DO WITHOUT CIGARETTE?
- ★ THE DIFFICULT AVAILABILITY
- ★ CHANGE THE ATTITUDES: CIGARETTE IS NOT A FRIEND, BUT THE WORST ENEMY





# *MEDICAL SUPPORT - NRT*

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## ★ CHEWING GUMS:

- NICORETTE – 2, 4 mg: RULES FOR RIGHT CHEWING



## ★ PATCHES:

- NICORETTE – 16 hours – 5, 10, 15 mg
- NIQUITINE – 24 hours – 7, 14, 21 mg





## *NRT - continue*

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★ INHALATORS



★ SUBLINGUAL TABLETS



★ (NASAL SPREY)



# *SAFETY AND HAZARD*

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★ DECREASED WITHDRAWAL SY.

★ SLOW RELEASE OF NICOTINE  
WITHOUT VASOCONSTRICTION



★ CROSS PLACENTAL BARRIERE

★ ANTENATAL ACTIVATION nAChRs ->  
NEUROTERRATOGENIC EFFECTS



★ MULTIPLE CARCINOGENICITY



# *NICOTIN IS A COMPLETE CARCINOGEN*

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★ PARTIALLY METABOLITES TO NNK  
=> INITIATOR OF CARCINOGENICITY



★ REVASCULARISATION OF  
CARCINOMA/METASTASES TISSUES  
=> HIGHER PROGRESSION





# *BUPROPION*

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★ ANTIDEPRESSIVE DRUGS:  
**ZYBAN, WELLBUTRINE**

★ COMBINATION WITH NRT







# *VARENICLINE - CHAMPIX*

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★ AGONIST OF NICOTINE:

★ - > RELEASE OF DOPAMINE - >

★ - > CIGARETTE IS NOT SOURCE OF PLEASURE

AFTER UNSUCCESSFUL ATTEMPT(s), ONE WEEK BEFORE STOPPING





# *CONTRAINDICATIONS*

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★ PREGNANCY AND LACTATION – NO EXPERIENCES YET



★ CHILDREN, ADOLESCENTS – NO EXPERIENCES YET





# *NEW RECOMMENDATION*

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- ★ TO EXCLUDE PERSONS WITH PSYCHIATRIC DISORDERS
- ★ NEUROPSYCHOLOGICAL OBSERVATION OF VARENICLINE USERS
- ★ CARDIOVASCULAR EVENTS





# VACCINATION

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★ AFTER UNSUCCESSFUL ATTEMPTS:  
THE HIGH-MOLECULAR COMPLEX



★ OF NICOTINE + ANTIBODIES = >



★ IMPOSSIBILITY TO REACH THE  
BRAIN



## *FIRST RESULTS:*

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- ★ 5 DOSES of 400 ug
- ★ IN ONE MONTH INTERVALS
- ★ BIVALENT VACCINE





## *NEXT RESEARCH*

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- ★ OPTIMAL TIME-SCHEDULE
- ★ OPTIMAL DOSES with the respect to
- ★ GENETIC POLYMORPHISM of CYP2A6
- ★ QUICK RELEASE OF NICOTIN
- ★ COMBINATION
- ★ NEW TREATMENT
- ★ NEW (safe sources of) ADDICTION





# *RELAPS*

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★ TO TRY „ONLY ONE“ PUFF

★ COFEE, VINE

★ FRIENDS



★ SEEK THE MORE PLEASURE

★ STRESS





## *5. ARRANGE FOLOW-UP*

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★ RELAPS MAY BE STRESSFUL FOR SMOKER



★ REPEATED ENHANCE OF SMOKER'S RECENT MOTIVATION TO STOP



★ BETTER ARRANGEMENT





# *CONCLUSION*

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- ★ THE RISK IS BIG
- ★ STOPPING SMOKING WORKS
- ★ THE EARLIER START OF STOPPING, =>
- ★ THE BETTER RESULTS
  - FOR SMOKER
  - FOR SMOKER'S RELATIVES
  - FOR THE WHOLE SOCIETY
- ★ NOT FOR THE TOBACCO COMPANIES



Self mutilation by smoking — this patient had all four limbs amputated for a Buerger's type of arteritis. His cigarette holder was made out of a coat hanger by one of his friends on the ward.



# *MY RECOMMENDATION*

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- ★ FOR NO - SMOKERS:
- ★ DO NOT START TO SMOKE
- ★ DO NOT ALLOW TO BE A VICTIM OF REGARDLESS SMOKERS





# *MY RECOMMENDATION*

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- ★ FOR SMOKERS:
- ★ DO RESPECT THE NO-SMOKERS' RIGHTS TO BREATHE THE CLEAN AIR !!!
- ★ DO CLEAN THE TOXIC WASTAGE (butts)
- ★ DO MAKE THE RIGHT DECISION (TO STOP SMOKE)
- ★ DO KEEP IT



*BECAUSE ...*

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★ THE LIFE WITHOUT TOBACCO IS

★ MORE FREE

★ MORE MODERN



★ MORE CLEAR

★ MORE AROMATIC

★ MORE SENSUOUS



★ MORE ....