

Unit 1

SMOKING / LE TABAGISME

TENSE AND ASPECT / TEMPS ET ASPECT

Build your vocabulary

smoking / tobacco addiction	= le tabagisme
a smoker	= un fumeur
a non-smoker	= un non-fumeur
a heavy smoker	= un gros fumeur
a chain smoker	= un fumeur invétéré
passive smoking / second-hand smoking	= le tabagisme passif
recreational drugs / soft drugs	= drogues douces (à usage récréatif)
a drug-addict	= un toxicomane
quit / give up / stop smoking	= arrêter de fumer
kick the habit	= en finir avec une accoutumance
nicotine replacement therapy (NRT)	= traitement nicotinique de substitution (TNS)
e-cigarette	= cigarette électronique / vapoteuse
vape	= vapoter
withdrawal symptoms	= l'état de manque
weaning	= le sevrage
lung cancer	= le cancer du poumon
emphysema	= l'emphysème

Text

PASSIVE SMOKING IN CHILDREN LEADS TO ADDICTION

1. Smokers may complain about their rights to smoke in public, but they could be **harming** those around them even more than we thought. Inhaling passive smoke may physically cause some children to become smoking **addicts** later in life.
2. There is already **growing evidence** that second-hand smoking is not only harmful in itself, but that watching others smoke teaches children to become smokers. Now Margaret Windemere, an epidemiologist at McGill University in Montreal, and her colleagues have found evidence of a more insidious effect.
3. They **studied** 191 boys and girls. On their first meeting a few years ago, the children were a **mean** age of 9.2 years. The **researchers** visited each child's home and asked parents questions about how many people smoked at home, and how many cigarettes they smoked, along with other questions concerning revenues and **lifestyle**. They also measured the children's **lung** capacity, took **samples** of their saliva to test for a **breakdown product** of nicotine called cotinine, and enquired if the **youngsters** smoked.
4. Some years later, when the children were an average of 13 years old, the researchers contacted them again. At that time, 44 per cent had begun to smoke. Most had already gone through puberty, which is strongly linked to **taking up** smoking. The **research** showed that when physical development, revenues, and the **amount** of smoke in the home were all **accounted for**, one final factor remained as the only predictor of which children would start smoking as teenagers: the **levels** of cotinine found in their saliva when they were children.

5. That means the more nicotine a child had absorbed from passive smoking at around the age of nine, the more likely he or she was to become a smoker. Among pre-pubertal children **surveyed** a second time, high cotinine levels four years earlier doubled their **chances** of becoming a smoker. "Having absorbed the nicotine is associated with wanting to take up cigarettes," says Windemere. She cautions that the study was small and not initially **designed** to explore this question, but is certain that the **findings** have revealed a real effect.

Improve your pronunciation

account [ə'kaʊnt]
addict ['ædɪkt]
addicted [ə'dɪktɪd]
amount [ə'maʊnt]
average ['ævərɪdʒ]
design [dɪ'zaɪn]
harm [hɑ:m]
inhale [ɪn'heɪl]
insidious [ɪn'sɪdiəs]
saliva [sə'lɑɪvə]
study ['stʌdi]
youngster ['jʌŋstə]

Reading comprehension

1. How and when may people become addicted to smoking?
2. What are the consequences of passive smoking?
3. Who were the subjects taking part in the study?
4. What did researchers measure in the course of the study?
5. What risk factors for taking up smoking were considered?
6. What is cotinine and what is its link with addiction?
7. What doubts are expressed about the results?

VOCABULARY

Title.

lead to (led, led)

addiction

→ drug addiction (= toxicomanie/
accoutumance à la drogue)

to bring as a result

a habit that has become impossible to break

1. harm

= to do harm [U]

→ harmful (= nocif)

≠ harmless (= inoffensif)

addict

→ addictive (addictif)

→ addicted (dépendant)

to have a damaging effect on somebody or something

a person dependent on a habit such as smoking

Ex. Cocaine is an addictive substance.

Ex. A person who is addicted to alcohol is an alcoholic.

2. growing

→ to grow (grew, grown)

(= grandir, croître)

→ growth (= croissance)

evidence [U]

gradually increasing

facts or physical signs that help to show or prove that something is true

3. study

→ a study (= une étude)

mean age

= average age

→ on average (= en moyenne)

researcher

to investigate a subject meticulously

the total number of years divided by the number of individuals

a person who does research

the lungs	the two organs in the thorax that fill with air when one breathes
sample → to take a blood sample (= effectuer un prélèvement sanguin)	a small quantity of a substance used for medical tests
breakdown product	a metabolite
youngster	a child or a young person
4. take up (took, taken)	to begin, to start an activity
research [U]	the methodical quest for new knowledge and better understanding
amount	a quantity
account for	to take into consideration, to take into account
level	a relative quantity, standard or degree Ex. A high level of cholesterol
5. survey → a survey (= une enquête)	to collect data or information in the course of a study
chances	probability, likelihood
design	to plan or to intend for a particular purpose
findings [C] = results	information resulting from research

Video

SMOKING AND CARDIOVASCULAR DISEASE

<https://youtu.be/q1Y0ggSB-8I>

- Smoking dramatically increases the risk of cardiovascular **disease**, including **heart** disease, heart attack and **stroke**. When cigarette smoke is inhaled, toxic gases pass through the lungs and into the **bloodstream**, causing every organ to be exposed to these toxins. Tobacco within cigarettes contains nicotine and many other **compounds**. As the compounds burn, thousands of harmful chemicals are **released**. Many of these chemicals are known to cause cancer. In the bloodstream, carbon monoxide from cigarette smoke **binds to** hemoglobin found in **red blood cells** and this interferes with the **delivery** of oxygen to tissues throughout the body. In addition, nicotine and carbon monoxide can damage the **inner lining** of the **walls** of the **arteries**, causing an increased risk of **fatty deposits** at the **injured** site. These fatty deposits, called atherosclerotic plaques, can cause significant **narrowing of the blood vessels**, which can severely reduce **blood flow**. In coronary artery disease, atherosclerotic plaques within the heart vessels can reduce or block the flow of blood to the heart possibly leading to **angina** or **chest pain**. In more serious cases, where the heart muscle is **starved of** oxygen for too long, an area of the heart muscle may **die**, causing irreversible damage. This is commonly called a heart attack or myocardial infarction. When nicotine in the bloodstream **flows** through the **adrenal gland**, it stimulates the release of a hormone called epinephrine. This hormone causes the **heart rate** and **blood pressure** to increase potentially putting an added **strain** on the heart. Smoking also increases the risk of blood **clots** because it causes **platelets** in the blood to become **stuck together**. In some cases, a blood clot can **travel** to the **brain**, causing a blockage within an artery preventing the **supply** of much needed oxygen and **nutrients**. This is commonly known as a stroke. Following a stroke, the area of the brain affected may no longer function normally, possibly leading to **disability**. In severe cases, a stroke can be fatal.

TEMPS ET ASPECT

Il convient de faire la différence entre temps chronologique (*time*) et temps grammatical (*tense*). Le temps chronologique est universel, alors que le temps grammatical peut varier selon les langues. Ainsi, l'anglais est un **moteur à 2 temps : le passé et le présent**. Les subtilités de la langue sont exprimées grâce à l'utilisation de l'aspect, des modaux... (cf. Unit 2)

Il n'y a donc que **2 formes simples** (le présent simple et le prétérit) qui peuvent être utilisées seules ou combinées aux **2 formes aspectuelles** (l'aspect inaccompli et l'aspect accompli). L'aspect reflète la façon dont on envisage un événement ou une action par rapport à un certain point de vue situé dans le présent ou le passé.

	PRÉSENT	PASSÉ
forme simple	I work at the hospital. (<i>simple present</i>)	I worked at the hospital last week. (<i>simple past</i>)
aspect inaccompli (be + V-ing)	At the moment, I am working at the hospital.	I was working at the hospital when I heard the news.
aspect accompli (have + participe passé)	I have never worked at the hospital. (<i>present perfect</i>)	I got the job because I had already worked at the hospital. (<i>past perfect</i>)
aspect accompli + aspect inaccompli (have + participe passé) + (be + V-ing)	I have been working at the hospital for 5 years.	I had been working at the hospital for 5 years when I became head of the department.

1. Les temps simples

A la forme affirmative, le verbe est utilisé selon les modalités suivantes :

Présent : **V** (base verbale) ou **V + (e)s** si le sujet est à la 3^{ème} personne du singulier

Passé : **V-ed** ou **verbe irrégulier** (cf. liste en fin de manuel)

Ex. This build-up **damages** the lining of the vessels.

The researchers **visited** each child's home.

Si les temps simples se construisent sans auxiliaire à la forme affirmative, l'utilisation d'un auxiliaire est nécessaire aux formes interrogatives et négatives.

Présent : **do** ou **does** si le sujet est à la 3^{ème} personne du singulier + **V**

Passé : **did** + **V**

Ex. **Do you smoke?**

The team **did not find** any difference between men and women.

Attention : si le mot interrogatif est sujet, la question se construit sans auxiliaire.

Ex. **Who smoked** my last cigarette?

1.1. Le présent

Le présent simple fait rarement référence au moment présent. Il est utilisé pour décrire des **habitudes**, des **vérités générales**, des **faits objectifs et permanents**, des verbes qui décrivent un **état d'esprit** ou l'**appartenance**.

Ex. The risk of developing lung cancer normally **rises** after the age of 60.

People who **believe** that smoking is safe **are** wrong.

Cigarettes **contain** many highly toxic substances.

1.2. Le passé

Le prétérit marque généralement une **rupture avec le moment présent** (valeur temporelle). Dans ce contexte, il est très souvent associé à un repère temporel passé (date, horaire, complément de temps, période...) et fait référence à des faits, des événements, des activités **révolus**.

Ex. **In 2006**, they **studied** 191 boys and girls.

Attention : **ago** (toujours placé après le complément de temps) indique une rupture avec le présent et est donc systématiquement utilisé avec le prétérit.

Ex. **On their first meeting** a few years **ago**, the children **were** an average age of 9.2 years.

Le prétérit peut aussi marquer une **rupture avec le réel**. Il a alors une valeur modale d'irréel, en particulier dans les subordonnées exprimant la condition. (cf. Unit 10).

Ex. If I **stopped** smoking, I would save a lot of money.

Cela est également vrai lorsque le verbe principal exprime un souhait ou un regret.

I wish I **didn't smoke**.

1.3. Le cas particulier de "be"

D'un point de vue structurel, il convient de noter que **be** fonctionne de façon autonome. Il n'est pas nécessaire d'avoir recours à un autre auxiliaire aux formes interrogatives et négatives.

Ex. Second-hand smoking **is not** only harmful in itself.

Were you aware of the risks when you started smoking?

2. Les temps composés

Les temps composés sont formés à partir des temps simples associés à une ou plusieurs formes aspectuelles (**be + V-ing**, aspect inaccompli, et/ou **have + participe passé**, aspect accompli).

2.1. Aspect inaccompli (be + V-ing)

Cette forme aspectuelle indique que l'événement ou l'action n'est pas arrivé à son terme. Elle est utilisée pour exprimer une action en cours, une activité temporaire centrée sur le sujet.

2.1.1. Contexte présent

Lorsque cette forme aspectuelle est liée au moment présent, l'auxiliaire **be** est utilisé au présent simple.

Ex. They **are trying** hard to stop smoking.

Look, the pneumologist **is smoking**!

Elle peut également prendre une valeur subjective, en particulier avec des adverbes comme *always, again...*

Ex. Even though she smokes, she **is always complaining** (= elle n'arrête pas de se plaindre) about being short of breath.

2.1.2. Contexte passé

Lorsque cette forme aspectuelle est liée au moment passé, l'auxiliaire **be** est utilisé au prétérit. Elle permet de définir un contexte dans lequel un fait s'est produit ou une activité s'est déroulée.

Ex. Tom Sawyer, a medical geneticist from Cambridge University, **was studying** the genetic factors of heart disease when his team **found** the link with smoking.

2.2. Aspect accompli (have + participe passé)

Cette forme aspectuelle (have + participe passé) indique que l'événement ou l'action est arrivé à son terme. Elle est utilisée pour exprimer implicitement ou explicitement le résultat d'une action ou les conséquences d'un événement. Elle a souvent une valeur de bilan.

2.2.1. Contexte présent

Lorsque cette forme aspectuelle (*present perfect*) est liée au moment présent, l'auxiliaire **have** est utilisé au présent simple.

- Ex. Now, [...] her colleagues **have found** evidence of a more insidious effect.
Have you heard the news? They **have** finally **prohibited** smoking in public places.

Le *present perfect* établit un lien entre le passé et le présent. Contrairement au prétérit, il ne marque pas la rupture avec le présent.

- Ex. They **have been** friends **since** (= Ils sont amis depuis) they **met** at medical school in the 80s.

Attention : **for** et **since** se traduisent tous deux en français par « depuis ». **For** introduit une **durée** (*for three hours, for a few months, for a long time...*) alors que **since** fait référence au **point de départ** d'une période (*since three o'clock, since September, since last year...*).

2.2.2. Contexte passé (*past perfect*)

Lorsque cette forme aspectuelle est liée au moment passé, l'auxiliaire **have** est utilisé au prétérit. Cette forme établit un lien entre un moment passé, défini par le contexte, et un moment qui lui est antérieur.

- Ex. **At that time**, 44 per cent **had begun** to smoke. Most **had** already **gone** through puberty...
 Passive smokers, defined as those who **had lived** with someone who smokes **for** five years or more, **were** found to double their risk.

2.3. Formes aspectuelles complexes (*have + been + V-ing*)

Les deux formes aspectuelles (aspect accompli : **have + participe passé** et aspect inaccompli : **be + V-ing**) peuvent être utilisées conjointement.

2.3.1. Contexte présent

Cette forme insiste sur les conséquences souvent perceptibles d'une activité du sujet grammatical alors que le *present perfect* insiste sur le COD et le bilan de l'activité.

- Ex. **I am very tired**; I have been consulting since 7 a.m.
 I have seen **15 patients** since 7 a.m.

2.3.2. Contexte passé

Cette forme insiste sur les conséquences passées d'une activité du sujet grammatical alors que le *past perfect* insiste sur le COD et le bilan de l'activité.

- Ex. **The accident happened** because the doctor had been operating for twelve hours non-stop.
 By the end of the day, he had operated on **8 patients**.

EXERCISES

1. Complete the following sentences, using the verbs in brackets.

- When she got to the hospital, she discovered she _____ her white coat at home. (leave)
- Since I _____ to you last, I've had an accident. Nothing serious! (write)
- At the moment, the senior surgeon _____ the junior surgeons. (train)
- How many cases of meningitis _____ they _____ so far? (identify)
- He _____ his hand while he _____ football. (break / play)
- By the time the ambulance arrived, he _____ a lot of blood. (already / lose)

2. Fill in the gaps with a suitable word from the definition list above.

- There is substantial _____ of a link between the build-up of ozone and asthma attacks.
- In France, the _____ woman lives to her mid 80s.
- Chemotherapy _____ products are mainly excreted in the urine.
- _____ are trying to _____ a reliable test for prostate cancer.

3. Translate the following sentences.

1. Mon père fume 10 cigarettes par jour.
2. En ce moment, il fait beaucoup d'exercices pour essayer de faire baisser sa tension artérielle.
3. Selon les résultats des recherches les plus récentes, de plus en plus de jeunes ont une dépendance à la nicotine.
4. Le tabagisme provoque des dégâts considérables aux vaisseaux sanguins.
5. Mon ami a arrêté de boire il y a 3 ans.
6. Cela fait 5 ans que mon taux de cholestérol est élevé.

4. Speaker's corner. Discuss the following issue using the vocabulary above and the websites below.

Smoking ban in public places: for or against?

Do your own search

www.worldheart.org

www.nlm.nih.gov/medlineplus/smoking.html

http://www.cdc.gov/cancer/lung/basic_info/risk_factors.htm

Unit 2

SURGERY AND ORGAN DONATION CHIRURGIE ET DON D'ORGANE

MODALITY / EXPRESSIONS DE LA MODALITÉ

Build your vocabulary

endoscopic surgery / keyhole surgery	= chirurgie endoscopique / coelioscopie
plastic / reconstructive surgery	= chirurgie plastique / réparatrice
a surgical operation	= une opération chirurgicale
a surgical procedure	= un acte chirurgical / une intervention chirurgicale
perform / carry out an operation	= opérer / pratiquer une opération
operate on a patient	= opérer un patient
operating theatre (GB) / operating room / OR (US)	= bloc opératoire / salle d'opération
resection / removal	= résection / ablation
resect / remove	= procéder à l'ablation / enlever
suture	= suturer
transplantation / transplant	= la transplantation
organ transplant	= greffe d'organe
transplant organ	= greffon / organe à greffer
graft / transplant	= greffe / greffon
skin graft	= greffe de peau
organ donation	= don d'organe
donate an organ	= faire un don d'organe
donor	= donneur
recipient	= receveur
rejection	= rejet

Text

A MOBILE SURGICAL UNIT FOR THE DEVELOPING WORLD

1. For people living in isolated areas of the developing world, the nearest hospital can be hundreds of kilometres away, making access to the most basic of **surgery** impossible. But if the people can't come to the hospital, why not take the **operating theatre** to them?
2. That's the thinking behind a solar-powered "hospital in a box", which can be put into the back of a Land Rover and has been designed to **enable** a team of three **surgeons** to **carry out** life-saving operations almost anywhere in the world.
3. The system, developed by a team of **doctors** and technicians from the **National Health Service (NHS)**, is composed of two small boxes that unfold to provide an operating table, lighting, anaesthesia and monitors, plus a plastic tent to provide a **clean** environment for surgery.
4. The kit contains only the basic instruments needed to carry out general surgery. Even so, this would be enough to **operate on** common conditions like cataracts and a perforated appendix, and it could also be used to **treat wounds** or victims of serious **burns**, says Alexander Grinch, a surgical technician at the Medway Hospital in Kent who helped design the system.
5. "We're confident that with this system and a minimum of three **properly trained** doctors, it is possible to offer general surgery to the standard you would expect in any European hospital",