

# Medical Safety Information

Pharmaceuticals and Medical Devices Agency

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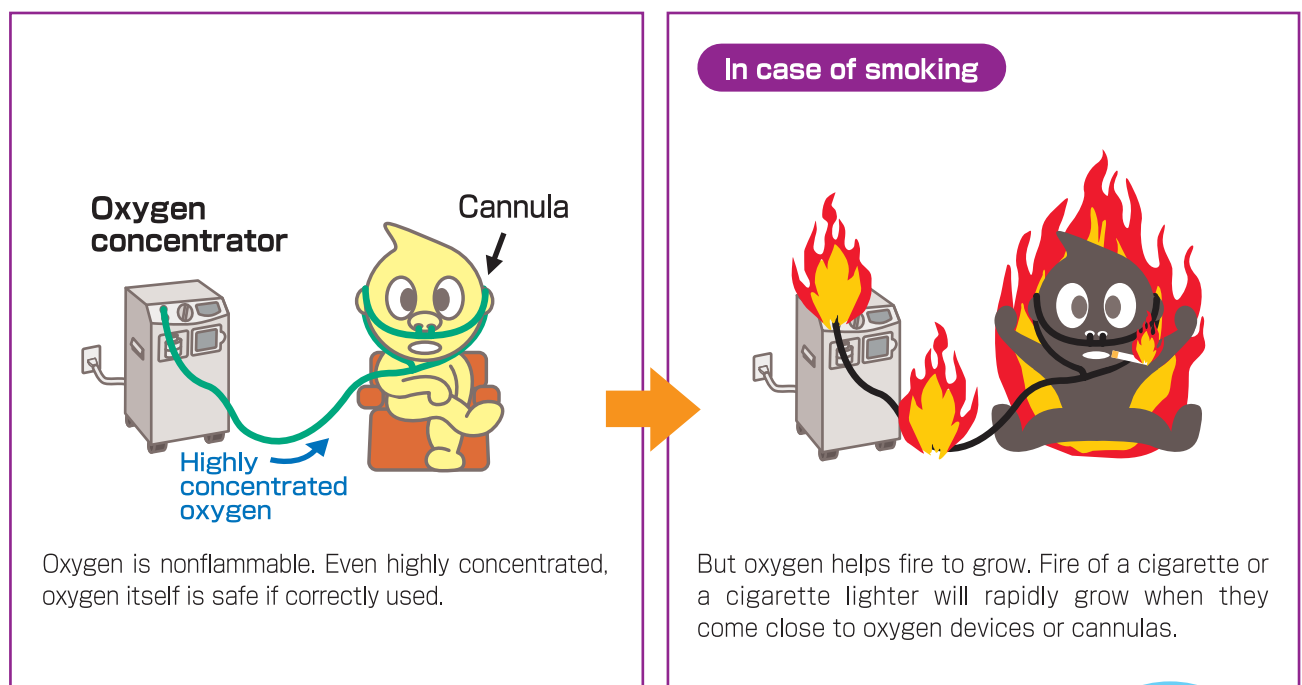
## Precautions against smoking and use of fire in Long-term Oxygen Therapy (LTOT)

### **POINT** Key points for safe use

(Case 1) The cases have been reported that patients on oxygen suffer severe burns, even death caused by fire of cigarettes or cigarette lighters.

#### 1 Precautions for LTOT – 1

- Patients on oxygen are strictly prohibited from smoking due to safety reasons as well as health reasons.
- Patients families are also strictly prohibited from smoking or use of fire near oxygen concentrators, oxygen cylinders or liquid oxygen units.



**Oxygen concentrator**

**Cannula**

**Highly concentrated oxygen**

Oxygen is nonflammable. Even highly concentrated, oxygen itself is safe if correctly used.

**In case of smoking**

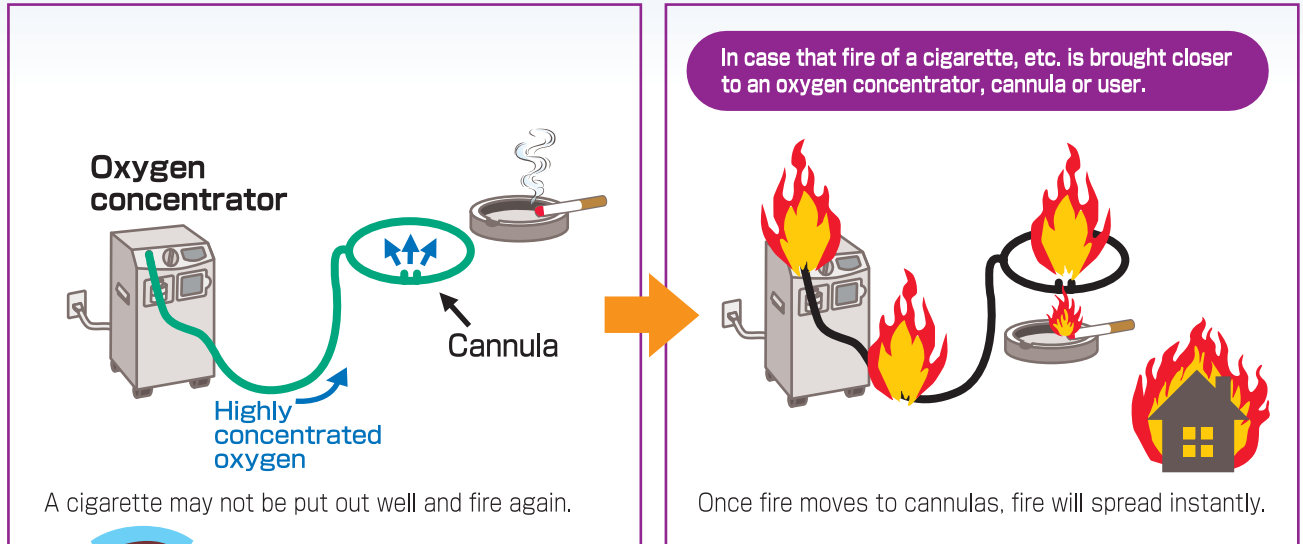
But oxygen helps fire to grow. Fire of a cigarette or a cigarette lighter will rapidly grow when they come close to oxygen devices or cannulas.

Please advise your patients well about the risk of fire. For more details, please refer to the oxygen device user manuals.



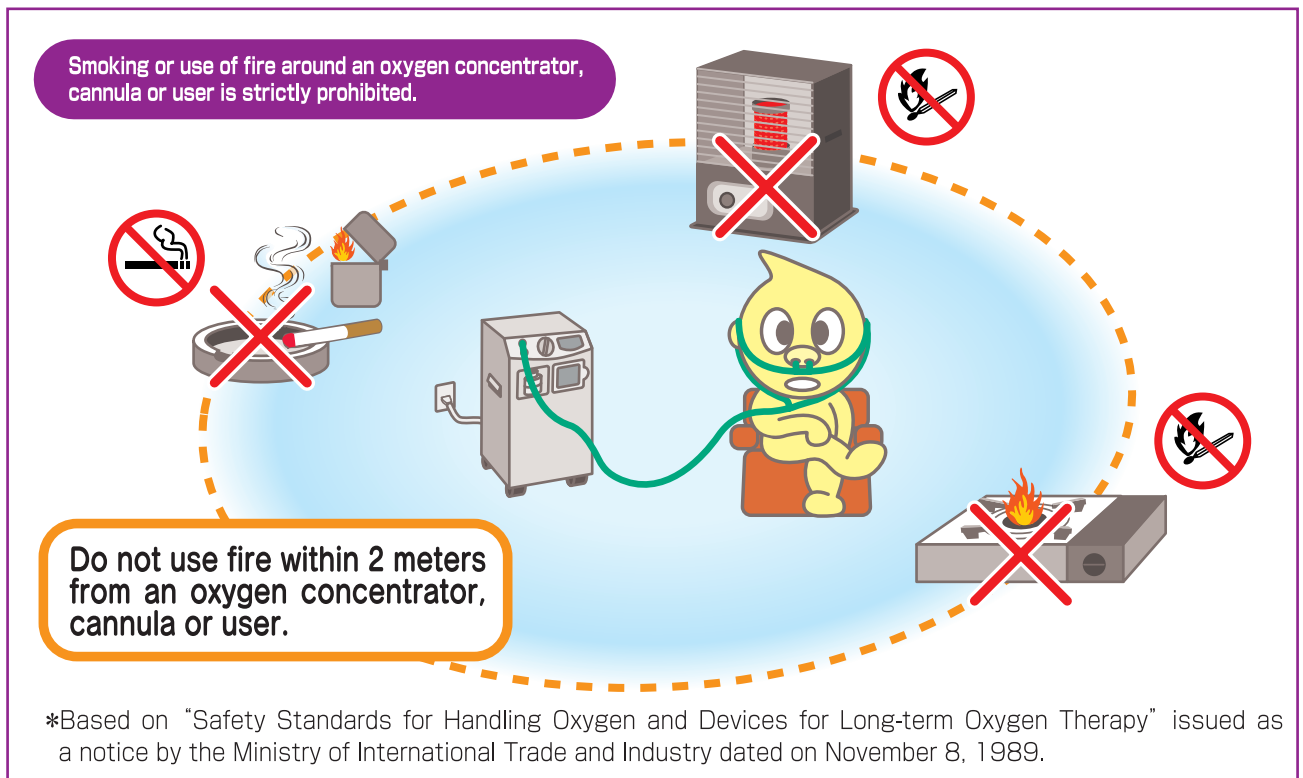
(Case 2) A patient left an oxygen concentrator working while not using. There was a smoking cigarette left in an ashtray nearby. Then the fire of the cigarette suddenly moved to the cannula of the patient's oxygen concentrator and grew rapidly to finally burn the patient's house.

## 2 Precautions for LTOT – 2



Please be sure to turn off an oxygen concentrator when it is not used!!

## 3 Precautions for LTOT – 3



## Photographs showing verification results – 1 Nasal cannula catching fire



If a patient on oxygen  
smokes...



And if a burning cigarette  
touches his cannula tube...



The highly concentrated oxygen  
helps the cigarette fire to grow  
furiously in a moment.

(Photographs are provided by the Kobe City Fire Bureau)

## Photographs showing verification results – 2 Patient's clothing catching fire



Once the cannula starts to fire,  
fire keeps running unless you  
do not stop the oxygen supply.



Fire will grow furiously at the melted  
part of oxygen tube and spread to  
patient's clothing like a lighted fuse.



In this picture a mannequin is  
used, but if it were a real  
patient...

(Photographs are provided by the Kobe City Fire Bureau)

\*The movies of these verification results can be viewed at the following website.

The website of the Kobe City Fire Bureau <http://www.city.kobe.jp/cityoffice/48/life/zaitakusanso.html>

\*Also, a similar movie is provided by the Japan Industrial and Medical Gases Association, the Medical Gases Division, the Committee of Home Oxygen Dealers. For more details, please refer to the website of the Japan Industrial and Medical Gases Association at <http://www.jimga.or.jp/medical/>.

**Fire accidents associated with LTOT occur repeatedly every year. Please ensure that patients and their family members are alerted to the above risks and instructed not to smoke.**



### About this information

- \* PMDA Medical Safety Information is issued by the Pharmaceuticals and Medical Devices Agency for the purpose of providing healthcare providers with clearer information from the perspective of promoting the safe use of pharmaceuticals and medical devices. The information presented here has been compiled, with the assistance of expert advice, from cases collected as Medical Accident Information Reports by the Japan Council for Quality Health Care, and collected as Adverse Drug Reaction and Malfunction Reports in accordance with the Pharmaceutical Affairs Law.
- \* We have endeavored to ensure the accuracy of this information at the time of its compilation but do not guarantee its accuracy into the future.
- \* This information is not intended to impose constraints on the discretion of healthcare professionals or to impose obligations and responsibility on them, but is provided as a support to promote the safe use of pharmaceuticals and medical devices by healthcare professionals.