What caused the optical cable to burn



Overview

The distal end of the fiberoptic light cable becomes extremely hot, with the potential to cause burns and ignite the drapes covering the patient. 3-5 In these systems, a powerful light is transmitted from the light projector through a. In April 2020, a researcher from the UK examined a case study involving a 23-year-old patient who experienced a light source-related burn after undergoing a routine arthroscopic surgery. Arthroscopy—as well as laparoscopy and thoracoscopy—requires an illumination system to provide the surgeon with. In our many columns on iatrogenic burns and surgical fires, we have only briefly mentioned fiber optic cables as a heat source. Now Joint Commission has published a Quick Safety issue on the dangers of fiber optic cables in producing burns in laparoscopic or arthroscopic surgery (TJC 2023).

Article Content

Light Source-Related Burns Are a Real Problem | ACS

To accomplish this, surgical teams use light sources featuring fiber-optic or gel-filled cables. In this case, the patient underwent surgery for a lateral meniscus tear.

Patient Safety Tip of the Week Archive

In one case report (Chitnavis 2020), a full-thickness 1-cm burn occurred on a patient''s thigh related to the fiber optic cables that had been rested on a paper drape overlying the patient''s thigh.

Laparoscopic light source skin burn

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The burn was suspected to be from the laparoscopic light source. To confirm the suspicion, the light source was tested on two surgical drapes used to cover the patient during surgery.

Potential for patient burns linked to surgical light sources

One study demonstrated that the heat at the tip of the optical light cord can produce immediate superficial tissue necrosis that can extend into the subcutaneous fat even when the

Silent burn: the hidden danger and effects of bright light from fibre ...

Lesions resulting from the fibre-optic cable were wider than those caused by the arthroscope tip and also formed a central scab. Scars remained inflamed for about 6 months.

(PDF) Silent burn: the hidden danger and effects of ...

We reviewed the literature and found several case reports of iatrogenic full thickness burns from the use of cold light sources and optical cables during orthopaedic arthroscopic surgery.

Main Causes of Fiber Optic Failures,Industry News

Reasons for Fiber Optic Failures: 1.Excessive Length of Fiber Optic Cable: Long fiber optic cables can lead to performance issues. 2.Excessive Bending: Overly bending the fiber optic

Thermal injury to common operating room materials by fiber optic light ...

The xenon light source with the fiber optic light cable created thermal injury at light intensities of 50%, 75%, and 100%. Time to injury increased as light intensity was decreased. Only

Baltic Sea cable sabotage timeline: From Nord Stream

An undersea fibre-optic cable connecting Latvia and Sweden''s Gotland island malfunctioned on January 26, prompting a Nato and police

What fiber optic cable does my ATT gateway use?

Recently I changed my ISP from Xfinity to ATT fiber, and it works great! Though I need to move the gateway they gave me (HUMAX BGW320

(PDF) Heating and Burning of Optical Fibers and

We investigate in detail the scattering properties and heating characteristics in various commercially available optical fibers and fiber cables

Preventive Maintenance of Fiber Optic Cables and Optics

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OF FIBER OPTIC CABLES AND OPTICS cable and the inner surface of an optical module lens surfaces that should be properly cleaned and maintained to reliability and system performance. Small oil micro

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Common Fiber Optic Cable Problems and How to Fix Them

Fiber optic cables are the backbone of today''s high-speed communication networks, powering everything from FTTH broadband to data centers. However, like any technology, fiber optic systems

Fiber Optic Cable Failures in the Field And How to

Fiber optic cables are the backbone of modern communications, delivering high-speed data over long distances with minimal loss. However, in

Indoor vs Outdoor Fiber Optic Cable: Differences, Types & Selection

Learn the key differences between indoor and outdoor fiber optic cables, including structures, applications (FTTH, Backbone, Data Centers), standards, and how to choose the right

Fiber Fuse – optical fiber

Fiber fuse is a phenomenon where an optical fiber "burns" from the output end due to an intense laser beam injected at the other end.

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