

Functional evaluation of the cervical spine of the Dutch military pilots and aircrew

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1. To estimate the one-year prevalence of neck pain among military pilots and aircrew.2. To determine the flight related and individual risk factors associated with this prevalence.3. To assess the cervical range of motion, the ability to return the...

Ethical review	Not approved
Status	Will not start
Health condition type	Other condition
Study type	Observational invasive

Summary

ID

NL-OMON31903

Source

ToetsingOnline

Brief title

Cervical spine evaluation military pilots and aircrew

Condition

- Other condition

Synonym

flight related neckpain

Health condition

pijnklachten van de nek

Research involving

Human

Sponsors and support

Primary sponsor: Commando Luchtstrijdkrachten

Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: cervical spine, loadmasters /aircrew, military pilots

Outcome measures

Primary outcome

The results of this study will provide prevalence figures of neck pain of dutch military pilots and aircrew and identify individual and flight related risk factors associated with neck pain. Furthermore, the results will lead to knowledge about the factors cervical range of motion, proprioception and strenght that play a role in the occurence of neck pain. The MRI will be examined on degenerative changes of the cervical and lumbar spine.

Secondary outcome

n.v.t.

Study description

Background summary

Neck pain among military pilots have been topic of discussion in many international airforces the previous years. high prevalences have been repoted by international airforces concerning acute and chronic neck pain. The developements in flight equipment such as helmets and night vision goggles lead to new factors contributing to neck complaints, not only for fighter pilots but also helicopter pilots and loadmasters. Within the scientific literature, however there's no consensus about the risk factors of flight related neck pain and preventive measures.

Study objective

1. To estimate the one-year prevalence of neck pain among military pilots and aircrew.
2. To determine the flight related and individual risk factors associated with this prevalence.
3. To assess the cervical range of motion, the ability to return the head to a neutral and defined position and neck strength in military pilots and aircrew and to determine differences between pilots with no neck pain, and pilots with several episodes of neck pain in the past 12 months and pilots with present neck pain.
4. To assess the prevalence and type of lumbar and cervical degenerative changes in military pilots and aircrew.

Study design

cross sectional

This research consists of several parts: a questionnaire, a test for measuring cervical range of motion and reposition error (proprioception), strength of the neck and a Magnetic Resonance Imaging of the cervical and lumbar spine. Participation will be voluntary and anonymity will be guaranteed by using a personal code; only the pilots own the key to this code. Participation will take maximal 2 hours.

Study burden and risks

n.v.t.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adults (18-64 years)

Elderly (65 years and older)

Inclusion criteria

1. "Fit to Fly"certification, or medical approval for participation given by flight physician Lt-kol drs P.van Amerongen.
2. Voluntary participation
3. Age between 18-55 years

Exclusion criteria

1. Relevant medical problems
2. Flying before testing on the day of testing

Study design

Design

Study type: Observational invasive

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Basic science

Recruitment

NL

Recruitment status: Will not start

Enrollment: 70
Type: Anticipated

Ethics review

Not approved
Date: 11-12-2007
Application type: First submission
Review commission: METC Universitair Medisch Centrum Utrecht (Utrecht)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL20578.041.07