

Operational instructions and eligibility requirements for skydivers

Table of contents

INTRODUCTION	3
DEFINITIONS	3
1 INSTRUCTIONS FOR A SKYDIVER	4
1.1 INSTRUCTIONS ABOUT GEAR AND LIMITATIONS	4
1.1.1 Gear used by independent skydiver	4
1.1.2 Student skydiver gear	4
1.1.3 Wing loading	5
1.1.4 Camera	5
1.1.5 Wingsuits	5
1.1.6 Other special skydiving	5
1.2 WIND LIMITS	6
1.3 FOREIGN LICENSES	6
1.3.1 Students	6
1.3.2 Conversion	7
1.3.3 Instructor and coach ratings	7
1.4 REPORTING INCIDENTS	7
2 REQUIREMENTS AND RIGHTS FOR STUDENTS, LICENSES AND RATINGS	8
2.1 REQUIREMENTS AND RIGHTS FOR STUDENT	8
2.1.1 Age	8
2.1.2 Medical requirements	8
2.1.3 Status statement	8
2.1.4 Knowledge-, skill and experience requirements	8
2.1.5 Rights	9
2.2 LICENSE REQUIREMENTS, RENEWALS AND RIGHTS	9
2.2.1 Medical requirements	9
2.2.2 A-License	9
2.2.3 B-license requirements, validity, stating and rights	10
2.2.4 C-license requirements, validity, stating and rights	11
2.2.5 D-license requirements, validity, stating and rights	11
2.3 RATINGS, RENEWALS AND RIGHTS	11
2.3.1 Medical requirements	11
2.3.2 Coach	12
2.3.3 Static line instructor	12
2.3.4 Accelerated Free Fall instructors (AFF-I)	13
2.3.5 Tandem Instructor (TI)	14
2.3.6 Canopy Coach (CC)	15
3 REQUIREMENTS FOR ORGANIZATIONS	16
3.1 REQUIREMENTS FOR THE DROPZONE AND THE LANDING AREA	16
3.2 MONITORING ACTIVITIES AND SAFETY	16
3.2.1 Load master	16
3.2.2 Chief pilot	17
3.3 TRAINING ANNOUNCEMENT	17
3.4 TRAINING ORGANIZATION	18
3.4.1 Chief instructor and assistant chief instructor	18
3.4.2 Chief rigger	18
3.4.3 Safety officer	18
3.4.4 Instructors and coaches	19
3.4.5 Assistant coaches	19

3.4.6 <i>Training facilities and equipment</i>	19
3.5 ORGANIZATION DOCUMENTATION	19
3.5.1 <i>Training documentation</i>	20
3.5.2 <i>Informing insurances</i>	20
3.6 SELF-CONTROL DOCUMENTATION FOR ORGANIZATIONS.....	20
4 SHOW JUMP INSTRUCTIONS	21
4.1 OVERALL INSTRUCTIONS.....	21
4.2 SHOW JUMP ORGANIZATION	21
4.3 PERMISSIONS, ANNOUNCEMENTS AND TERMS	21
4.4 SHOW JUMP AREAS AND -CONDITIONS.....	22
4.5 PERFORMING SHOW JUMP	22
4.6.1 <i>Smoke</i>	22
4.6.2 <i>Flags</i>	23
APPENDIX	24
PARACHUTIST’S HEALTH STATEMENT	25
SKYDIVERS HEALTH AND MEDICAL REQUIREMENTS	26
TANDEMPARACHUTIST’S HEALTH STATEMENT	28
HEALTH AND MEDICAL REQUIREMENTS FOR A TANDEM	29
WING LOADING CHART FOR SKYDIVERS UNDER 200 SKYDIVES	31

Introduction

[This is an unofficial translation. The Finnish version applies in case of conflict.]

Operational instructions and eligibility requirements for skydivers is a collection of a rules and regulations related to skydiving operations. It gives a guidelines and recommendations for a skydivers and organizations regarding skydiving operations. Guidelines are divided in four categories:

- Rules for a skydiver.
- Requirements and rights for students, license holders and instructors.
- Requirements for organizations.
- Exhibition skydiving guidelines.

Guidelines are updated on demand. Finnish Aeronautical Associations Parachuting Committee is responsible for updating these guidelines. Most recent collection can be found at their website <http://laskuvarjotoimikunta.ilmailuliitto.fi/materiaalipankki>.

If there is something unclear about rules, regulations, requirements or guidelines, issue can be moved to be solved by **Finnish Aeronautical Association (SIL Ry)**.

Definitions

Skydiving organization or **organization** means an association, club or other party that is organizing skydiving operations. Training organization means an organization that has successfully made a training announcement to the Finnish Aeronautical Association.

Skydivers are divided between students, tandem students, **A-**, **B-**, **C-** and **D-**license holders. If an independent skydiver does not hold a valid license provided by Finnish Aeronautical Association, he/she can be categorized to the same license level than his/hers experience, and knowledge suggests.

If not specified, "**student**" can mean both, either student that is going through a training program to become an independent skydiver or a tandem student. Students that are going through training program to become an independent skydivers can be further categorized as a "**primary training student**", "**basic training student**" or "**advanced training student**".

Skydiving instructors are categorized as a coach and instructors. **Coach** (Finnish *vapaapudotuskouluttaja*, VPK) means a person who has successfully completed a coach course overseen by the Finnish Aeronautical Association. **Instructor** (Finnish *hyppymestari*, HM) means both a static line instructor (SL-I), an AFF instructor (AFF-I) and a tandem instructor (TI). And canopy coach means a person who has successfully completed a course overseen by the Finnish Aeronautical Association to become a canopy coach (Finnish *kuvunkäsittelykouluttaja*, KKK). **Examiner** means a person who can train and give certificate for coach, instructor, or canopy coach course candidates.

1 Instructions for a skydiver

1.1 Instructions about gear and limitations

1.1.1 Gear used by independent skydiver

Skydiver must have at least following equipment:

- Complete parachuting system where a main- and reserve parachute are on the same harness.
- Hook knife attached in a way it is accessible easily throughout the jump.
- Visual altimeter that can be read during the jump. If the landing area is in the water and jump altitude is lower than 1500m, visual altimeter is not mandatory.
- Head protection gear for A-, B- and C-license holders during lift-off, approach and landing below 300m altitude and during the jump.
- Instead of metallic reserve handle skydiver can use soft pillow handle if there is a hard stiffener inside the pillow, user has a D-license and used gear is equipped with an automatic activation device (AAD). On top of these requirements, it is recommended to have a reserve static line (RSL) and skydiver should practice his/hers emergency procedures often.
- A- and B-licensed skydivers must have an automatic activation device (AAD).
- A- and B-licensed skydivers must have a reserve static line (RSL).

Other gear is specified later in this document. Maintenance and maintenance certificates are specified in a guide for parachuting gear maintenance that can be found at the parachuting committee website.

1.1.2 Student skydiver gear

Tandem instructor is responsible to offer gear to the tandem student that is required by the manufacturer. Other student skydivers are required to use at least following equipment:

- Complete parachuting system where a main- and reserve parachute are on the same harness. Main- and reserve parachute needs to be approved by the Finnish Aeronautical Association to be used as a training parachute. For advanced training students the canopy can be other than a student canopy, but approved by the club training representative.
- During a static line jump where the student climbs outside of the plane prior to the exit and the deployment force on the static line system is below 12kg there must be a back-up system to raise the pulling force for the deployment up to 12-50kg. Static line system cannot reach the tail of the plane. Static line system needs to be checked to be suitable for the plane before using it.
- Hard helmet where the strap is routed to the top of the helmet outer surface during take-off, approach and landing, below 300m and during the jump.
- Clear and colorless goggles. With an approval from the instructor, advanced training student can use a full-face helmet with a clear and colorless visor.
- One-piece suit, underneath the suit clothes should be according to the weather.
- Gloves.
- Sturdy hook-knife attached in a way that it is accessible easily throughout the jump.
- Visual altimeter with an analog display (mechanism can be digital, but the display has to be analog) that can be read throughout the jump. Altimeters that are used by students are

checked annually. Hand-mounted altimeter usage is recommended to be used starting from the first jump. Advanced training student can use extra audible altimeter with a permission by the instructor or the coach.

- Shoes suitable for skydiving.
- Automatic activation device (AAD) suitable for skydiving. Primary- and basic training students automatic activation device has to be designed for student activities.
- Reserve static line (RSL).
- If there is a present danger for drowning near the landing zone, training organization can enforce usage for floatation device suitable for skydiving.

1.1.3 Wing loading

Main- and reserve parachute wing loading should be within the limits of the skills and experience of the skydiver. A- and B-license holders can use only canopies that are approved by the Finnish Aeronautical Association (list can be found in Finnish from the website) and the wing load cannot be greater than 1.34 lbs/sqft (exit weight). Wing loading limit for a primary- and basic training students is 1.1 lbs/sqft. Wing loading limit for an advanced training student is 1.34 lbs/sqft. In attachments there is a table for recommended wing loading with different sizes of the canopy.

1.1.4 Camera

Camera skydiving requires at least a C-license. During tandem jumps tandem instructor may use a hand-mounted camera if the instructor has at least 200 tandem jumps.

1.1.5 Wingsuits

Using a wingsuit requires at least a D-license. A-, B- and C-license holders can use a wingsuit if he/she receives training from a manufacturer certified coach. While using wingsuits, manufacturer requirements should be followed.

1.1.6 Other special skydiving

While using props that has an effect on the freefall performance or under the canopy (such as tubes, smoke) skydiver has to be at least C-license holder. Skysurfing requires either a D-license, or C-license with a permission by the chief instructor or by a person authorized by the organization and practical exercises for safe skysurfing. If the prop can be released during the jump there must be a device to slower the fall in a way that it might cause harm to others, if not otherwise specified by the Finnish Aeronautical Association.

Jumps when the exit altitude is above 13 000 feet (atmospheric pressure altitude).

Skydivers must use extra oxygen in the plane when the altitude is (NCO.SPEC.PAR.115)

- Over 13 000 ft (3 962m) over six minutes or
- Over 15 000 feet (4 572m) over three minutes.

If extra oxygen is used, automatic activation device is strongly recommended. If exit altitude is over 6 000m (19 685ft) it is recommended to use extra oxygen also during freefall.

Water landings

When planning water landings following points needs to be taken into account on top of normal requirements for skydiving operations:

- Skydiver has at least B-license.
- Skydiver is wearing a suitable floatation device.
- Landing area has a boat suitable for life saving operations and a person for assistance for each skydiver.

Exhibition jumps

Skydiver performing a skydive during exhibition is required to be at least a C-license holder.

Night jumps

While performing night jumps skydiving operations has the following extra requirements on top of the normal requirements:

- Skydiver is at least C-license holder.
- Skydiver is wearing an altimeter with an illumination function or backlight.
- Skydiver has an attached light that is visible others around.
- Skydiver has a spotlight for checking the canopy.
- Landing area has lights.

1.2 Wind limits

- For students and A-license holders the limit for a ground level wind is 8m/s.
- For B-, C- and C-license holders the limit for a ground level wind is 11m/s.
- Round parachute as a main- or reserve canopy the limit is 8m/s.

1.3 Foreign licenses

If skydiver does not hold a license issued by a FAI (Fédération Aéronautique Internationale) member association, comparable at least to FAI Parachuting Certificate of Proficiency A-license his/hers license is checked by the training organization. Signature with date and possible limitations are marked to his/hers logbook.

1.3.1 Students

If a student has started a foreign student program, student follows the Finnish Aeronautical Association student program starting from a point where the training organization places the student. Training organization can add extra jumps if the situation requires. Transfer to the student program should be marked with possible extra requirements to the training logbook.

1.3.2 Conversion

If person with a foreign license wishes to be converted to the Finnish Aeronautical Association license, person should show a proper logbook and give practical exercises suitable for the applied license. Person should fulfill Finnish Aeronautical Association requirements for the applied license. As a minimum requirement skydiver must pass a written A-license exam, practical tests for gear checks, packing and packing checks and person must jump a check-dive.

1.3.3 Instructor and coach ratings

While working as a coach or instructor person needs a fitting and up to date rating issued by the Finnish Aeronautical Association. Foreign rating holder experience, knowledge about Finnish regulations and student program and rating equivalence needs to be checked by an examiner.

1.4 Reporting incidents

If during skydiving operations happens an incident where the safety of a skydiver or air traffic have been compromised or could have been compromised, there should be a written report about the accident to the Finnish Aeronautical Association. Incidents that requires written report without exceptions are:

- All incidents where safety is compromised or could have developed into situation where safety is compromised.
- All canopy malfunctions.
- All skydives that required usage of a reserve canopy.
- All injuries.

Written report should be done as soon as possible after the incident. This report does not compensate for flight safety report ([GEN T1-4](#)). Incidents involving tandem skydiving requires also separate report to the equipment manufacturer according to their instructions.

Report is written via the [electronic reporting system](#). Reports regarding student activities are done by the coach or instructor responsible for the student, or the chief instructor. Otherwise the reports are written primarily by the skydiver him-/herself. Written report can also be written by the safety officer at the club. If necessary, report can be written by anyone. After the report is sent, there is an email sent to the personnel set by the organization, at least to the president, chief instructor and safety officer.

Point of the written report is to spread the knowledge to the Finnish Aeronautical Association and other skydivers in order to promote safety.

Information helps to develop safety culture, necessary changes in gear, training and practices.

Actions after an accident is listed in the GEN T1-4 and also in the instructions given by the Finnish Aeronautical Association.

2 Requirements and rights for students, licenses and ratings

2.1 Requirements and rights for student

2.1.1 Age

Student is expected to be at least 15 years old before starting the training. Students under 18 years old are required to provide written permission by a guardian.

2.1.2 Medical requirements

Student should be approved by the training organization by providing self-written health statement and if organization requires to provide a health statement made by a doctor to show that the student fulfill health requirements for skydiving. Student renews the health statement once he/she turns 55 years and every 5 years after that. Students older than 65, needs to provide doctor written health statement always, and renew that statement every 5 years. Student needs to renew the health statement if there is major changes in health.

At the doctor's appointment student provides to the doctor health requirements for skydiving and instructions for the examination (found in attachments of this document). Tandem student has their own requirements and instructions. Both can also be found at the website of the parachuting committee.

2.1.3 Status statement

Before starting skydiving operations, it is necessary to the training organization to state in writing that the student fulfills following requirements.

2.1.4 Knowledge-, skill and experience requirements.

Student

Person has and can provide skills and knowledge stated by the Finnish Aeronautical Association and tested by the training organization. Also, person needs to pass required jumps from the student program successfully. Passable score in a written exam is 70%. During practical exercises instructor evaluates each candidate according to the level of training.

Tandem student

Before first jump the student is expected to have necessary information regarding the exit and freefall.

Validity

Student status is valid once the student has provided a health statement (and if necessary, statement from a doctor) that states that the student fulfills medical requirements for skydiving operations in question. Chief instructor can cancel the status. Written exam and practical exercises are valid one year, excluding emergency procedure exercise which is valid for two months.

2.1.5 Rights

Student

Student can perform skydiving jumps under a supervision of an instructor or a coach. Student who is in advanced training can perform jumps without supervision in the plane, when there is an instructor or a coach supervising on the ground. Student has a right to pack a main parachute under a supervision of a skydiver who has a valid license or is certified rigger by the Finnish Aeronautical Association and takes a responsibility of the outcome of the pack job.

Also student (or other person) can achieve a right to pack main parachute that he/she has received a training and passed a written theory exam and practical exercise overseen by the organizations chief instructor or chief rigger. Once passed, this training gives the person a right to make packing checks for other students on the main parachute.

Tandem student

Tandem student has a right to jump tandem jumps with a tandem instructor.

2.2 License requirements, renewals and rights

2.2.1 Medical requirements

A-, B-, C- and D-license holders are required to renew their health statements once they reach the age of 55 and after that, every five years. After the age of 65 it is required to provide a doctor's note with the health statement every five years. License holder is required to update the health statement if there is a major change in their health status.

During a medical check-up by the doctor skydiver offers instructions for the examination to the doctor performing the examination. Instructions can be found in the attachments on this document. Instructions can also be found online.

Organization check the health statement and states the validity to the document and to their own records. If there is a statement made by a doctor, it is marked to the records. Also, possible limitations (must wear glasses or contacts, mandatory AAD for example) is also marked to the records. Organization can at any time require a statement made by a doctor if the situation requires.

2.2.2 A-License

Fulfillment of the requirements for A-license is stated by the chief instructor or an instructor. Training certificate provided by an instructor is valid license and gives a permission to perform skydiving independently. On top of training certificate it is required for a skydiver to perform at least 10 self-deployed skydives within 12 months to keep the certificate valid. Missing jumps are performed under supervision by a coach or an instructor.

Training certificate

Training certificate must hold at least following info:

- Name of an instructor.
- Person name and date of birth.
- Training records.
- Start- and end dates of training.
- Instructor signature and date.

Training certificate can be for example a logbook. Finnish Aeronautical Association grants a license based on their requirements. License is valid when person can provide a certificate given by the association. Before skydiver can perform independent skydives, the following criteria must be met.

Age-, knowledge, skill- and experience requirements

Person should be at least 15 years old. Person is expected to have skills and knowledge specified in the training program made by the Finnish Aeronautical Association and the person has completed all required jumps and passed them. Minimum amount of jumps is 25, pre-defined and self-deployed jumps.

Validity and renewal

License is valid until next years end of March. When applying for a new license or renewing an old one, it is required for the person to have at least 10 self-deployed skydives in the past 12 months. Missing jumps are jumped under supervision of a coach or an instructor. When renewing the license, person validates by him-/herself that the experience and medical requirements are fulfilled.

Rights

A-license holder has a right to perform independent skydives and pack a main parachute where he/she has received a training. Holder has also right to supervise a student who is packing a main parachute. Holder has also right to perform wingsuit skydives, if holder receives Finnish Aeronautical Association or suit manufacturer approved training from a certified person and follows experience guidelines set by the manufacturer.

Finnish Aeronautical Association has a list of approved canopies holder can pack and supervise packing.

2.2.3 B-license requirements, validity, stating and rights

B-license requirements are:

- Same age-, experience- and knowledge requirements than A-license.
- At least 50 self-deployed skydives with 30 minutes cumulative freefall time.
- Successfully completed a canopy course either overseen by the Finnish Aeronautical Association or approved by certified canopy coach.

Fulfillment of the requirements is stated by the training organization who issues a training certificate. Finnish Aeronautical Association issues the license. It is applied and renewed the same way than an A-license. When renewing the license, person validates by him-/herself that the experience and medical requirements are fulfilled. B-license holder has the same rights than A-license holder, with additional rights for jumps with intentional water landings and after 100 self-deployed skydives holder can be an assistant coach if approved by the training organization.

2.2.4 C-license requirements, validity, stating and rights

C-license requirements are:

- Same age-, experience- and knowledge requirements than B-license.
- At least 200 self-deployed skydives with one hour of cumulative freefall time.

Fulfillment of the requirements is stated by the training organization who issues a training certificate. Finnish Aeronautical Association issues the license. It is applied and renewed the same way than a B-license. When renewing the license, person validates by him-/herself that the experience and medical requirements are fulfilled. C-license holder has the same rights than B-license holder, with additional rights for camera-, expedition- and night jumps. Person can have props such as a tube or smoke that has a major effect on a freefall or performance under the canopy. Skysurfing requires practical exercises given to the training organization to make sure person has required skills for safe performance.

2.2.5 D-license requirements, validity, stating and rights

D-license requirements are:

- Same age-, experience- and knowledge requirements than C-license.
- At least 500 self-deployed skydives with three hours of cumulative freefall time.

Fulfillment of the requirements is stated by the training organization who issues a training certificate. Finnish Aeronautical Association issues the license. It is applied and renewed the same way than a C-license. When renewing the license, person validates by him-/herself that the experience and medical requirements are fulfilled. D-license holder has the same rights than C-license holder, with additional rights to jump without head protective gear. Person can perform skysurfing and wingsuit jumps.

2.3 Ratings, renewals and rights

2.3.1 Medical requirements

Coach and static line instructor is required to provide a medical statement made by a doctor while applying for a rating for the first time so the organization can be sure applicant fulfills medical requirements suitable for the rating. After the first application coach and static line instructor gives a self-written health statement every five years. Health statement made by a doctor is required again once the rating holder turns 60 and every five years after that. AFF and Tandem instructors renews their health statement made by a doctor on the first time applying and every five years.

During a medical check-up by the doctor skydiver offers instructions for the examination to the doctor performing the examination. Instructions can be found in the attachments on this document. Instructions can also be found online.

Organization checks and signs the self-written statement and it is added to the records (waiver or similar, electronic is sufficient). Statement by a doctor is added to the records (waiver or similar, electronic is sufficient). Possible additional info (required to wear glasses for example) is marked to the instructor's logbook. Organization can require at any time a self-written health statement or statement from a doctor.

2.3.2 Coach

Coach examiner signs a certificate of training. Fulfillment of the requirements are checked by the chief instructor and rating is issued by the Finnish Aeronautical Association. Rating is valid when person can provide a certificate made by the Finnish Aeronautical Association. Before person can act as a coach, following requirements must be met:

- At least 18 years old.
- Skydiving license valid for more than two years.
- Current C- or D-license.
- Passed Finnish Aeronautical Association approved coach course.
- Passed at least all tasks required in the program.

Validity and renewing

Coach rating is valid from the date issued to the end of March next year respecting medical requirements. Working as a coach requires:

- C- or D-license is current.
- Person has done a written test that is valid for 2 years.
- When renewing person has at least 10 independent coach jumps within 12 months where at least five of them are FS jumps from the student program.

If applicant does not have enough coach jumps within 12 months, applicant is required to jump one jumps with the chief instructor or with an instructor authorized by the organization where all parts of a normal student jump is fulfilled.

Rights

Coach can perform a gear check for students in basic or advanced training phase and coach them. Coach cannot receive written exams from students.

2.3.3 Static line instructor

SL examiner signs a certificate of training. Fulfillment of the requirements are checked by the chief instructor and rating is issued by the Finnish Aeronautical Association. Rating is valid when person can provide a certificate made by the Finnish Aeronautical Association. Before person can act as a static line instructor, following requirements must be met:

- At least 18 years old.
- Passed a static line instructor course approved by the Finnish Aeronautical Association.
- When applying for the first time:
 - o Has done at least required tasks from the program.
 - o Has a current coach rating.

Validity and renewing

Static line instructor rating is valid from the date issued to the end of March next year respecting medical requirements. Working as a static line instructor requires:

- C- or D-license is current.
- Person has done a written test that is valid for 2 years.
- When renewing person has worked as an instructor during theory training and on practical exercises on at least one static line first jump course and has dropped within 12 months at least 10 students, where at least 5 has been static line jumps.

If requirements are not met, person has to do tasks required by a static line examiner before renewing the rating. If only missing requirement is student jumps, person needs to drop missing amount under supervision of another static line or AFF instructor. Supervising instructor has to be in a plane while supervising.

Rights

Static line instructor has a right to train static line first jump courses and basic- and advanced training students. Static line instructor can supervise exams and practical exercises also from AFF students on those tasks that are in line with static line training.

2.3.4 Accelerated Free Fall instructors (AFF-I)

AFF examiner signs a certificate of training. Fulfillment of the requirements are checked by the chief instructor and rating is issued by the Finnish Aeronautical Association. Rating is valid when person can provide a certificate made by the Finnish Aeronautical Association. Before person can act as an AFF instructor, following requirements must be met:

- At least 18 years old.
- Passed AFF-I course approved by the Finnish Aeronautical Association.
- First time applying:
 - o Has done at least tasks required by the program.
 - o Has a current coach- or static line instructor rating.
 - o D-license or C-license if the coach rating has been valid for a longer than 12 months.

Validity and renewing

AFF instructor rating is valid from the date issued to the end of March next year respecting medical requirements. Working as an AFF instructor requires:

- Person has valid C- or D-license.

- Person has done a written test that is valid for 24 months.
- When renewing, person has worked as an instructor at least on one AFF first jump course and jumped at least 15 AFF levels within the past 12 months.

If there is longer than 6 months from the last AFF jump the instructor has to jump one AFF training jump with another instructor.

If person does not have enough jumps from the past 12 months, or he/she has not worked as an instructor during AFF first jump course, he/she has to do tasks that examiner requires to be done before renewing the rating.

Rights

AFF instructor has right to teach AFF first jump course, basic training and advanced training students. He/she can verify students and sign a license application. AFF instructor can also receive exams and practical exercises from static line students from those parts that are common between the two programs.

2.3.5 Tandem Instructor (TI)

Tandem examiner signs a certificate of training. Fulfillment of the requirements are checked by the chief instructor and rating is issued by the Finnish Aeronautical Association. Rating is valid when person can provide a certificate made by the Finnish Aeronautical Association. Before person can act as a Tandem Instructor, following requirements must be met:

- At least 18 years old.
- Passed Tandem Instructor course approved by the Finnish Aeronautical Association.
- First time applying:
 - o Has done at least tasks required by the program.
 - o Has or had a coach or instructor rating.

Validity and renewing

Tandem Instructor rating is valid from the date issued to the end of March next year respecting medical requirements. Working as a Tandem Instructor requires:

- Person has valid D-license.
- Person has completed Tandem Instructor examination. Examination is valid for 24 months.
- Person fulfills requirements set by the manufacturer.
- When renewing, person has jumped at least 15 tandem jumps within the last 12 months.

If these requirements are not fulfilled, he/she needs to complete tasks set by a Finnish Aeronautical Association authorized examiner before renewing the rating.

Rights

Tandem Instructor has a right to train tandem students.

If tandem student has a note "medical tandem student", instructor must fulfill following criteria:

- His/her experience must be over 250 tandem jumps.
- He/she has done at least 50 skydives in the past 12 months where at least 15 are tandem jumps.

2.3.6 Canopy Coach (CC)

Canopy Coach examiner signs a certificate of training. Fulfillment of the requirements are checked by the chief instructor and rating is issued by the Finnish Aeronautical Association. Rating is valid when person can provide a certificate made by the Finnish Aeronautical Association. Before person can act as a Canopy Coach, following requirements must be met:

- At least 18 years old.
- Completed and passed Coach-, or Instructor training.
- Current D-license.
- Passed Canopy Coach course approved by the Finnish Aeronautical Association.
- First time applying completed tasks required by the training program.

Validity

Canopy Coach rating is valid from the date issued to the end of March next year respecting medical requirements. Working as a Canopy Coach requires:

- Current D-license.
- When renewing, he/she has kept at least one canopy course within the past 12 months.

If requirements are not met when renewing, person has to complete tasks set by the Canopy Coach examiner and approved by Finnish Aeronautical Association.

Rights

Canopy Coach has the right to give canopy coaching to licensed skydivers and give a certificate of completed canopy course.

3 Requirements for organizations

3.1 Requirements for the dropzone and the landing area

Dropzone and landing area must meet following criteria:

- Dropzone must have pre-organized lifesaving and first-aid preparations fit for the environment.
- Dropzone must have equipment that visualizes wind direction and speed.

Student skydives must be done to a dropzone approved by the chief instructor. Suggested minimum obstacle free landing area is 300m long from the existing wind direction and 150m across. There must be equipment to call in emergency services and while student skydiving is active, there must be a person on the ground overseeing activities who has radio communication possibility to the pilot.

Landing area requirements for tandem skydiving is 100m long from the direction of the current wind and 25m across.

3.2 Monitoring activities and safety

During skydiving activities rules and regulations set by the Finnish Aeronautical Association must be followed.

Trustees set by the organization can give guidance and regulations within their competence. They are expected to intervene if rules and regulations are not followed.

Student skydiving activities must be performed under a supervision of the training organization. Training must follow the Finnish Aeronautical Association approved methods and standards. Under the influence of alcohol or other substances or while significantly tired it is not allowed to perform skydiving activities or other training related to skydiving.

Training organization can demand a doctor's note as a proof of physical suitability to perform skydive activities. Skydiver's gear must be inspected throughout before entering the aircraft. Instructor or a coach performs a gear check for a skydiving student within his/her competence.

3.2.1 Load master

Each load must have at least an A-license holder who is responsible for the load, this person is called a load master and is responsible for the whole load.

Load master must have a possibility to communicate with the pilot in case of emergency or change of original flight plan. Pilot and the rest of the load must know who is the load master.

Load master duties includes following and overseeing skydiving rules and regulations during the load. Load master is responsible to create a safe and organized load. Duties usually includes at least:

- Determine exit order, jumprun direction and landing patterns for other skydivers.
- Inform plans for the pilot before and during the flight.

- Inform other skydivers where check-lists and instructions can be found in the plane.
- Be responsible for loading the plane and during the flight.
- Inform organization for any deviations found that can effect safety or flight eligibility, and any incidents where safety has been or could have been compromised.
- Communicate with the pilot in case of a deviation or emergency and inform the rest of the load.

Organization related duty lists should be given to all skydivers as a written instructions and announced to skydivers and pilots. Instructions can be included in a skydiving operations manual or similar. Load master can prevent a person from skydiving if that person is not following rules and regulations.

3.2.2 Chief pilot

It is suggested for a skydiving organization to have a chief pilot. Chief pilot responsibilities usually includes:

- Works together with the rest of the organization on skydiving operations safety related issues.
- Is responsible for operating, updating and development of skydiving operations related rules and regulations.
- Creates and updates standard operating methods for skydiving operations.
- Determines requirements for pilot training for skydiving operations.
- Organizes skydiving operation hazard recognition, risk analyzing, controls them and oversees that they are realized.
- Organizes a list for approved pilots and their eligibility.
- Offers guidance in skydiving operations related issues.

3.3 Training announcement

Organizations providing training for skydiving creates a training announcement for the Finnish Aeronautic Association electronically. Announcement must include following:

- Name of the organization, address, phone number and email address.
- Methods used for training, where training follows Finnish Aeronautical Association guidelines.
- Organization chief instructor, chief rigger, safety officer and possible assistant chief instructor and chief pilot with contact information (= email address and phone number).
 - o To make communication easier, chairman and possible secretary contact information is added to the announcement.
- Dropzones used for student training.

If these announced information changes, it is required to inform changes electronically within 14 days after the change.

3.4 Training organization

Training organization is formed by people who are responsible for the training, these includes chief instructor, chief rigger, safety officer and instructors. Same person can have multiple nominations within organization. Training organization trustees must give written consent to the organization.

3.4.1 Chief instructor and assistant chief instructor

Person who is responsible for the training as a whole is called a chief instructor. That person is organizing all student activities. His/her responsibility is to make sure all aviation rules and regulations and current Finnish Aeronautical Association guidelines are followed. He/she is also responsible that up-to-date material and program is available for instructors and is being followed.

Possible assistant chief instructor supports and fills for chief instructor if necessary. When acting as a substitute for a chief instructor assistant has the same rights and responsibilities as the chief. Chief can limit rights and responsibilities for the assistant if he/she sees that it is necessary. Chief- and assistant chief instructor oversees and develops student training and intervenes if necessary.

Chief instructor approves instructors, coaches, student gear and their storing facilities. Chief instructor keeps a list of previously listed things and updates that list throughout the year. List must include approval dates and signature.

Chief- and assistant chief instructor is expected to have up to date instructor rating and license, and they are expected to be up to date on policies and practices of the dropzone.

3.4.2 Chief rigger

Chief rigger is responsible that gear used by the training organization follows all rules and regulations set by the aviation law and Finnish Aeronautical Association. Chief must actively follow training activities involving student gear. Chief is expected to have up to date instructor rating or rigging certificate issued by the Finnish Aeronautical Association.

Gear used in student training must be packed and checked according to a written instructions by the chief rigger. Instructions must include packing the main parachute, steps for checking the main parachute and closing sequence for all gear used in student training. Static line gear must be approved by the chief rigger.

3.4.3 Safety officer

Safety officer oversees skydiving activities and safety. Officer makes sure licensed skydivers follows all rules and regulations set by the aviation law and Finnish Aeronautical Association. Safety officer makes sure that all dangerous situations or potential dangerous situations are reported to the Finnish Aeronautical Association (see chapter 1.4) as soon as possible. Safety officer makes sure all rules and regulations are available for all who participate in skydiving activities (Safety officer records or electronic version on club website).

Safety officer works together with the rest of the organization on safety related matters. It is suggested for the organization to form a safety group that involves safety officer, club president,

chief instructor, chief pilot and jumpers with a variety of experience levels. It is also suggested for the organization to create a safety management system (SMS). Organization sets the rights and responsibilities for the safety officer as a written declaration that can be attached to skydiving activities handbook or similar. Safety officer can prevent person from skydiving activities if rules and regulations are not followed. Safety officer must have sufficient understanding and knowledge of skydiving activities and safety.

3.4.4 Instructors and coaches

Instructors and coaches assures according to the instructions given by the chief instructor that the training given by them is safe and rules and regulations are followed by all parties involved. Instructors and coaches are responsible for making sure that everyone involved in the training process have appropriate certifications and ratings.

Instructors and coaches are responsible to make sure that when starting student skydiving, the weather and dropzone conditions are fit for such activities keeping in mind experience level of the student and other dropzone related matters.

3.4.5 Assistant coaches

Assistant coach (ground training and radio) can be person who has B-license, 100 self-deployed skydives and approval from the chief instructor.

3.4.6 Training facilities and equipment

Training organization must have sufficient facilities and equipment for training. Training equipment must demonstrate sufficiently and appropriately goal of the training. Students must have access throughout the program either physically at the club or electronically:

- Aviation law.
- General skydiving related rules and regulations and announcements.
- Skydiver operational instructions and eligibility requirements (this document).
- Student programs given by the Finnish Aeronautical Association.
- Safety regulations and announcements given by the Finnish Aeronautical Association.

Also students must have enough (either written or electronically) material for self-studies and recap. In practice this means up to date version of the Skydivers Manual.

3.5 Organization documentation

Organization with skydiving operations must have statistics and documentation of their skydiving and student activities and report them to Finnish Aeronautical Association to fulfill national and international statistics. Jump numbers are also used to create annual safety reports and statistics.

3.5.1 Training documentation

During **first jump course** instructor in charge must keep a diary (or similar) about lessons and practical exercises kept and evaluation regarding written exam and practical tests. Diary must include all subjects and lectures, practical exercises and tests and signed by an instructor.

For a **tandem student** the documentation is signed by a tandem instructor and includes eligibility and training given for the student.

Primary-, basic- and advanced training students must have in writing completed training (written and practical) with instructor signature and all jumps according to their student program.

Instructor or a coach must verify all tasks done under their supervision to students logbook (does not apply to tandem students).

Instructor gives a training certificate once all requirements are fulfilled for a license application. Student logbook can be used as a certificate (first page of Finnish Aeronautical Association student logbook).

Organization must keep at least following training related materials:

- Training documentation (for example training diary and training documentation for each student).
- Written exams with answers and markings for successful practical tests.
- Health requirement forms and possible doctors notes.
- Guardian permissions.

These materials must be stored for at least two years. These materials must be provided if requested for a Finnish Aeronautical Association appointed inspector or similar.

3.5.2 Informing insurances

Organization must provide information about insurance coverage during training and student skydiving activities (electronical version is enough). If organization does not have insurance coverage for student activities, they must be recommended for each student (electronical version is enough).

3.6 Self-control documentation for organizations

Training organization must do self-control documentation and report it to Finnish Aeronautical Association every two years but it is recommended to be done annually. More information about the self-control documentation can be found from Parachuting committee website (laskuvarjotoimikunta.ilmailuliitto.fi).

4 Show jump instructions

4.1 Overall instructions

These instructions applies to all show skydiving within Finland regardless if they are performed in a airshow or separate program number somewhere else than aviation related gathering. These instructions does not exclude overall rules and regulations set for skydiving.

4.2 Show jump organization

Organization performing show jumping is expected to have a show jump organizer named by the board of trustees who is responsible for planning and safety. He/she is also responsible for the condition of materials and gear used during show jumps. His/her responsibilities includes at least:

- Monitor that all rules and regulations are followed during show jumps.
- Monitor that all skydivers have current license and gear checks are up to date.
- Monitor that insurance coverage is sufficient.
- Give briefing if necessary.

Board of trustees can appoint a substitute for that person who carries all listed responsibilities, if he/she is unavailable.

Responsible person can appoint necessary amount of assistants who can work as a load masters according to the instructions given.

Responsible person names jumpers for each show jump separately according to the skill level needed for that specific show jump.

4.3 Permissions, announcements and terms

Show jump leader should know well Finnish assembly law (22.4.1999/530).

When the organizing party is a skydiving club, show jump leader monitors that previously mentioned law is followed. If organizing party is someone else (for example party who ordered the show jump), show jump leader makes sure that the organizing party is aware for all responsibilities and terms regarding show jumping in a public gathering (for example insurances and permissions).

Show jumping requires permission from the owner or holder of the landing area.

By the assembly law (14§) requires local police department to be notified at least five days before the event starts, where the show jump is performed. Local police department can approve notification with shorter time period if event does not cause disturbance or unreasonable amount of extra work for police to carry their daily functions.

Notification is not required from such events, where amount of participants, location or overall nature of the event does not require extra measures to assure safety and order, for example traffic organizing.

If organizing the event might compromise safety of people or property, police can require jumpers to have sufficient liability insurance in case of possible accident.

4.4 Show jump areas and -conditions

Ground wind limit is 8m/s when landing area is smaller than 50m diameter.

Landing area must be clear from observers and obstacles that might cause dangerous situations to jumpers within at least 25m diameter. Audience access to landing area must be limited by for example fences or security personnel.

Landing area must be located in a way, that jumper can perform approach to headwind with at least 45 degree angle in relation to the ground and at least 10m over the highest obstacle.

Landing area must be clearly marked in a way that the markings are visible to jumpers. Markings can be used also to visualize for example wind direction etc.

Landing area must have a visual representation of the ground wind (wind sock, flag, streamer attached to a pole, smoke etc.) as close as possible.

Landing area must have appropriate equipment in case of emergencies and first aid.

There must be a reserve landing area close to the actual landing area in case of a malfunction that prevents jumper to land to the intended landing area. However, if the show jump leader evaluation declares that the main landing area is big and safe enough, reserve landing area is not required.

If there is high obstacles near the landing area, it is necessary before jumping to evaluate their effect on a safe approach in prevailing wind conditions. Show jump is not allowed if the jumper has to perform their final approach in severely turbulent conditions.

During show jumping it is required to have radio communication possibility between the pilot and the ground personnel.

4.5 Performing show jump

Jumper performing show jumps must have at least C-license.

4.6.1 Smoke

Smokes must be manufactured to be used during skydiving (NCO.SPEC.PAR.120 *Release of dangerous goods*).

While using smoke canisters while free fall skydive, attachment must fulfill following minimum criteria:

- Smoke canister must be attached in a proper frame that is attached to a leg. Tape, string or any kind of wire is not acceptable attachment.
- Smoke canister must be separated or isolated from the leg since it generates heat.

- Attachment system must endure all stress it might get during jumping including hard deployments (for example reserve parachute) and it must endure the heat generated by the canister.
- Attachment system must have a cutaway system in case of emergency, for example entanglement.
- Smoke canister must be directed in a way that fire or sparks coming out of the canister will not cause damage to the jumper or the gear.
- Smoke canister placement should not cause landing problems.

In addition to previously described smoke canisters intended to be used during free fall, jumper can use a smoke canister that is intended to be used only while under the canopy. These canisters should fulfill following minimum criteria:

- During free fall these canisters should be secured in a way that there is no risk for entanglement during free fall or while deploying the canopy.
- Smoke canister can be activated only once the canopy is completely deployed.
- Attachment should hold without problems canister heating.
- If smoke canister is attached to a long string and is hanging under the jumper, attachment should endure also the dropping the canister to hanging position.

4.6.2 Flags

While using a flag that is hanging under the jumper after the deployment, it should be placed in a way it will not open unintentionally during free fall or deployment. While using such flag, attached weight must be at the lower corner of the flag. Top corner attachment cannot be further away than 50cm from the jumpers leg.

Flag that is intended to be used during free fall cannot be attached to the jumper or his/hers gear. Flag must be held by hand without any attachment points. Flag must be structured in a way that it will not cause any damage if dropped. These flags cannot have any additional weight added to them.

APPENDIX

- Skydivers health statement (form)
- Skydivers health requirements
- Tandem student health statement (form)
- Tandem student health requirements
- Wing loading chart for jumpers under 200 jumps

PARACHUTIST'S HEALTH STATEMENT

(Confidential; only to be checked by the training organization)

Name and age: _____ years old
(Note: Doctors note is required from everyone older than 65 years old)

Do you have any of the following illnesses, injuries or limitations? (yes / no)?

1. Cardiological disorders (e.g. arrhythmia, high blood pressure, chest pain, Angina pectoris)

yes no

2. Respiratory disorders (e.g. asthma, pneumothorax, chronical sinusitis, tuberculosis)

yes no

3. Loss of consciousness (e.g. inexplicable or repetitive fainting, spasms or epilepsy, hypoglycaemic episodes etc.)

yes no

4. Insulin-treated diabetes

yes no

5. Neurological disorders (e.g. epilepsy, MS, Parkinson, dementia, cerebral circulation, hemiplegic migrane etc.)

yes no

6. Psychiatric illness (e.g. past or current psychosis, depression within 5 years, insomnia, ADHD or other illness requiring psychiatric or psychiatrist treatment)

yes no

7. Broken or fractured bones within the last 12 months, dislocated joints (ever) or joint replacement (ever) (except those that has been cleared by the doctor)

yes no

8. Hernia or fistulas (for example but not limited to: groin, belly button, scar, intestinal fistula, urine fistula)

yes no

9. Limitations in body movement or body abnormity (e.g. caused by a serious injury, birth defects or even partial paralysis)

yes no

10. Regular or temporary medication effecting on central nervous system (Any medication with a red warning triangle. for example but not limited to sleeping pills, strong painkillers, any opiate related medicine, cannabis regardless of intended use, stimulants)

yes no

11. Abnormal operation of senses (e.g. visual problems (glasses are not limitation), hearing impairment, abnormal sense of feel or balance, glasses are not visual problem)

yes no

12. Sight

Should be 0.8 or better. Both eyes need to have normal peripheral vision. Jumper should be able to read normal text from a 30cm distance. If jumper needs a glasses or contact lenses to achieve these requirements, jumper has to use them while skydiving.

I meet previously mentioned requirements

yes no

I need to use glasses or contact lenses in order to achieve previously mentioned requirements

yes no

I assure that the information I've given above concerning my health is truthful. In case my medical situation changes, I shall inform the training organization accordingly.

Place _____ Date _____ Signature _____

Place _____ Date _____ Guardian signature (under 18 years old) _____

Guardian name and phone number _____

HEALTH STATEMENT CHECKED

ABLE TO JUMP: yes no Doctors note required

Organization _____ Date _____ Instructor _____

SKYDIVERS HEALTH AND MEDICAL REQUIREMENTS

Skydiving is not that crazy sport that it is usually considered. Of course there are risks involved just like in any other extreme sport, but skydiving is much safer than it is usually considered.

Usually problems are caused by errors made by the jumper. Most typical injury is sprained ankle caused by a bad landing.

Skydiving is a sport. It requires good physical and mental condition and normal health. Mental problems that are a problem while skydiving is all conditions and illnesses that causes even a temporary unconsciousness or incapacity.

Doctors note is not required by all skydivers. Usually health statement given by the jumper is enough. Jumper is redirected to a doctor if:

- He/she applies for the first time to be a coach or static-line instructor. (instructor group I)
- He/she applies for the first time to be an AFF or tandem instructor. (instructor group II)
- Jumper is 65 or older.
- Health statement gives a reason to redirect the jumper to a doctor. (possibly illness, condition, injury or finding that might prohibit jumping)
- Organization or an instructor requires.

Skydiving

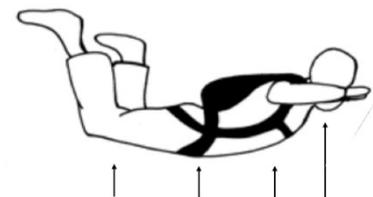
You will be using a harness that is specially designed for skydiving. The weight of the harness is about 15kg. While on the ground the weight is on your shoulder just like a backpack. Harness is tightened around the groin and from the chest in a way that it is not able to move around and straps are staying where they should stay. There is some adjustments that can be made, but for safety for example chest strap should be tight always. Vertical straps goes practically always over the collarbone. Leg straps are tighten around the legs and after the parachute is deployed, the weight of the jumper is on the leg straps and most of the weight is on back, but there is also some weight on the groin.



Skydive is performed from 1000-4000m altitude. Free fall time depends on the altitude from couple of seconds all the way to 50 seconds but the flight to the altitude takes around 15-30 minutes. In these altitudes changes in air pressure usually does not cause problems. While moving around above the sea level it brings physiological changes on how the human body functions that are caused by for example changes in air pressure and oxygen level. Tension also adds sympathetic nervous system load by raising the blood pressure and heart rate. For people who have tendency for hypoxia (lung problems, heart defects, cardiovascular illnesses etc.) should not skydive at all. Also pay an extra attention to all illnesses caused by changing air pressure (nose, ears).

During freefall skydivers velocity might go as high as 300km/h. The basic body position is so called X-position where the air flow is affecting on arms and legs. Eyes should be kept on the horizon, chin up and neck slightly extended. In basic body position shoulders are slightly rotated outwards and air flow is pressing upper limbs relatively strongly to posterior direction.

Parachute is deployed at around 1000 meters. In deployment body position jumpers right arm should be able to move against the airflow on top of the lower back. This means that there is significant risk for dislocate the shoulder. During deployment the velocity decreases from 50m/s to 5m/s within couple of seconds. During the deployment most of the pressure affects back and neck.



After the deployment jumper should be able to observe surroundings in three dimensional space (landing area, other skydivers). During landing parachute is braked by both arms, so the landing is usually soft (compare jumping down a chair), but sometimes there might be stress on back, knees, ankles or arms, if braking is not done or timed correctly. Braking requires simultaneous pull from both arms from almost completely extended up to completely extended down.

In possible emergencies jumper should be able to make independent and quick decisions (for example to use reserve parachute, landing away from the landing area). Jumper is not allowed to use any medication that effects on his/her ability to react or make decisions.

Skydiver should not have a disability or illness that prevents safe actions in the air, under the canopy or while landing. For example loss of consciousness or major limitations of movement.

During pregnancy it is not advice to skydive (the risk of miscarriage is higher, potential lack of oxygen, noise exposure for fetus).

Finnish medical association has a form for a basic statement made by the doctor (*Lomake T*). This form with a guidelines for the doctor (in Finnish) will guide doctor through the examination.

Skydivers health requirements are checked and stated for the time of examination. Doctors note is valid for 5 years.

For further questions please contact Finnish Aeronautical Association. Phone (09) 3509 340 email sil@ilmailuliitto.fi.

TANDEMPARACHUTIST'S HEALTH STATEMENT

(Confidential; only to be checked by the training organization)

Name and age: _____ **_____ years old**
(Note: Doctors note is required from everyone older than 65 years old)

Do you have any of the following illnesses, injuries or limitations? **(yes / no)?**

1. Cardiological disorders (e.g. arrhythmia, high blood pressure, chest pain, Angina pectoris)

yes

no

2. Respiratory disorders (e.g. asthma, pneumothorax, chronic sinusitis, tuberculosis)

yes

no

3. Loss of consciousness (e.g. inexplicable or repetitive fainting, spasms or epilepsy, hypoglycaemic episodes etc.)

yes

no

4. Neurological disorders (e.g. epilepsy, MS, Parkinson, dementia, cerebral circulation, hemiplegic migraine etc.)

yes

no

5. Insulin-treated diabetes

yes

no

6. Broken or fractured bones within the last 12 months, dislocated joints (ever) or joint replacement (ever) (except those that has been cleared by the doctor)

yes

no

7. Psychiatric illness (e.g. past or current psychosis, depression within 5 years, insomnia, ADHD or other illness requiring psychiatric or psychiatrist treatment)

yes

no

8. Limitations in body movement or body abnormality (e.g. caused by a serious injury, birth defects or even partial paralysis)

yes

no

9. Abnormal operation of senses (e.g. visual problems (glasses are not limitation), hearing impairment, abnormal sense of feel or balance, glasses are not visual problem)

yes

no

Am I under the influence of alcohol or any other intoxicating substance? (Including but not limited to: medication with red warning triangle, for example strong pain killers or sedatives)

yes

no

[this is checked on the day of the jump]

I assure that the information I've given above concerning my health is truthful. In case my medical situation changes, I shall inform the training organization accordingly.

Place

_____._____._____
Date

Signature

Place

_____._____._____
Date

Guardian signature (under 18 years old)

Guardian name and phone number

HEALTH STATEMENT CHECK

ABLE TO JUMP: Yes No Doctors note required

Organization

_____._____._____
Date

Instructor

HEALTH AND MEDICAL REQUIREMENTS FOR A TANDEM

Tandem skydive offers a quick and safe way to try skydiving. Tandem skydive might be possible for also those that might not be able to perform a solo skydive for a health reasons.

In tandem skydive the instructor and the student (= tandem student) skydive and use the same parachute. Student is attached to the instructors harness to the front with specially designed tandem harness. Tandem instructor is specially trained experienced skydiver and takes care of the safety throughout the skydive so the student can focus on enjoying the experience.

Doctors note is not often required by a tandem student. Skydivers own health statement is usually enough. Tandem student is redirected to a doctor if:

- Student is 65 or older.
- Health statement gives a reason to redirect to a doctor.
- Organization or the instructor insists.

Tandem skydive

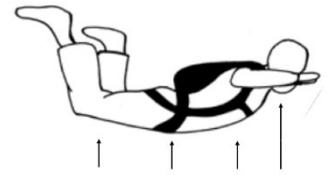


During tandem skydive the harness used is specially designed to do tandem skydives. Student is attached to the instructors front side to the instructors harness. Harness is tightened around the groin and from the chest in a way that it is not able to move around and straps are staying where they should stay. There is some adjustments that can be made, but for safety for example chest strap should be tight always. Vertical straps goes practically always over the collarbone. Leg straps are tighten around the legs and after the parachute is deployed, the weight of the jumper is on the leg straps and most of the weight is on back, but there is also some weight on the groin.

Tandem skydive is performed between 2400-4000m altitude. Freefall is depending on the altitude between 30-50 seconds and the flight to the altitude takes between 15-30 minutes. Tandem instructor deploys the parachute over 1000m altitude. Changes in air pressure or oxygen level in these altitudes won't cause problems for a healthy person. While moving around above the sea level it brings physiological changes on how the human body functions that are caused by for example changes in air pressure and oxygen level. Tension also adds sympathetic nervous system load by raising the blood pressure and heart rate. For people who have tendency for hypoxia (lung problems, heart defects, cardiovascular illnesses etc.) should not skydive at all. Also pay an extra attention to all illnesses caused by changing air pressure (nose, ears).

During freefall, velocity might get as high as 200km/h. Basic body position is so called X-position, where airflow is pressing especially arms and legs. Eyes are kept at the horizon, this means chin up and neck slightly extended. In basic body position shoulders are slightly rotated outwards and airflow is pressing upper body relatively strongly.

While deployment the velocity decreases from 50m/s to around 5m/s in couple of seconds. Most pressure during deployment is on the back and neck.



Landing usually happens softly on the instructors legs. Tandem student lifts her/his legs up to almost full sitting position around 15 seconds before the landing. Student places legs to the ground after the movement is completely stopped.

Tandem student should not have injury or illness that might compromise the safety during a skydive. For example any condition that might cause temporary loss of consciousness (epilepsy, un-balanced insulin-treated diabetes etc.).

During pregnancy it is not advice to skydive (the risk of miscarriage is higher, potential lack of oxygen, noise exposure for fetus).

Finnish medical association has a form for a basic statement made by the doctor (*Lomake T*). This form with a guidelines for the doctor (in Finnish) will guide doctor through the examination. For a tandem student the requirements are much lower regarding sight, hearing and body movement. All abnormalities should be considered case by case by the doctor.

Skydivers health requirements are checked and stated for the time of examination. Doctors note is valid for 5 years.

For further questions please contact Finnish Aeronautical Association. Phone (09) 3509 340 email sil@ilmailuliitto.fi.

