



YOUR NEW ODCC ROLLERPAK (EVOLUTION II)

Congratulations on your purchase of the "Evolution II" student ROLLERPAK.

"Evolution II" has been designed and developed in response to nationwide concerns over the heavy loads currently carried by school and college going students. The Outdoor Concept Company (ODCC) has listened closely to parents, student councils, principals, teachers and medical professionals alike in order to develop a student backpack that meets the following criteria:-

- **Ergonomic Shape & Design**
- **Promote Health & Safety**
- **Practicality and Functionality**
- **Strength and Durability**
- **Value for Money**

The "Evolution II" student ROLLERPAK aims to reduce or eliminate chronic back pain in children and teenagers that may occur following improper use or carrying of poorly designed backpacks.

Your new "Evolution II" ROLLERPAK provides the latest in material and component technology. This document sets out user features and functions for proper use and care for your "Evolution II" ROLLERPAK.

ROLLERPAK FUNCTION

As a user of "Evolution II" you are encouraged to utilise the curved roller function wherever and whenever practicable. "Evolution II" promotes 'off the back' technology as a 'down to earth' alternative to carrying unnecessary loads on the upper body. Use of the roller function eliminates wear and tear on the back and spine and eliminates risk of chronic back pain in early or later life.

BAKPAK FUNCTION

If the backpack is to be carried, the telescopic roller handle should be retracted into stowaway position. The bag should be lifted correctly onto the back and both shoulder straps positioned properly. It is recommended that the bag and its contents should not weigh more than 10% of the individual's body weight (i.e. 75kg body weight = 7.5kg total bag weight).

ERGONOMICS

The Lumbar support padding on the "Evolution II" is designed to transfer the weight of the bag and its contents to the lumbar region and hips, thereby taking pressure off the upper back and spine. Lightweight 'S' shaped shoulder straps have been provided with extra thick padding and neoprene lining for comfort and stability. The straps are given additional rigidity to provide for ease of placement on the back.

Rigid base and back panel design on the "Evolution II" provides support and maintains its ergonomic shape when the backpack is full. The rigid base provides stability and prevents sagging, widely associated with traditional school daysacks used as school bags. Added benefits of rigid design allow backpack to stand upright during loading and unloading and also prevent the need to bend down excessively when lifting from the ground.

SAFETY FEATURES

QUICK RELEASE STRAPS

Your "Evolution II" backpack is equipped with quick release buckles on both shoulder straps. These buckles have been provided for your safety in the event of entrapment within doors, vehicles or mechanical equipment. In the event of entrapment, simple quick release of shoulder, waist and sternum buckles will cause the shoulder straps to fully separate and allow the user to push clear of the trapped backpack.

HIGH VISIBILITY SAFETY BAG COVER

"Evolution II" backpack comes complete with a fixed detachable stow-away elasticised and waterproof safety cover. This cover comprises 'day glow' orange and yellow material with night 3M Scotchlite reflective stripes and chevron. It is recommended that the safety cover be fitted over the backpack during walking, cycling or trailing in all day-light conditions and during darkness. Remember 'Be Safe - Be Seen'.

HARNESS SYSTEM

"Evolution II" is fitted with a comfortable padded shoulder; waist and sternum (chest) strap Harness System. These straps are provided for your comfort and safety. When correctly adjusted to suit the individual they ensure that the backpack is fitted securely and properly. Waist straps must be adjusted to pull the base of the backpack closely into the lumbar region. Sternum straps provide secure positioning of the shoulder strap thus providing additional stability when carried. All straps are provided with elastic strap tidies. These should be used following adjustment to prevent loose straps hanging from the backpack.

SHOULDER STRAPS

"Evolution II" is provided with contoured 'S' shaped padded shoulder straps. These straps are provided to follow the natural body curvature for both male and female users for maximum comfort. To adjust the shoulder straps simply pull both shoulder straps simultaneously downwards and backwards. The correct adjustment will allow the backpack position move up or

down the back until the waist belt is positioned at the hipbone. Do not jerk the backpack up into position when bending forward as this can lead to injury.

STERNUM STRAP

The sternum strap provides stability, distributes some of the weight across the chest, allows arm movement and prevents the shoulder straps from slipping off the shoulders or moving apart when walking. The strap must be buckled across the chest (at the breast bone) and adjusted for comfort by using the ladder-lock buckle supplied. Installing the strap in the nylon loops provided on each shoulder strap provides vertical adjustment for correct positioning across the chest. Your sternum strap is elasticised to facilitate effective breathing and should not be over tightened.

HIP-WAIST BELT

"Evolution II" is provided with an adjustable waist belt complete with hip padding. The waist belt stabilises the load and pulls the backpack comfortably towards the individual's lumbar region. The waist belt position should be positioned across or below the hipbone. When the hip/waist belt is in the correct position and buckled ensure that the belt is adjusted to your desired comfort.

COMPRESSION STRAPS

Your backpack is provided with compression straps at both sides of the backpack between the back panel and second compartment. Pulling these straps allows the user to compress the contents of the backpack into a firm load. Compression straps pull the loads within the backpack towards the back and the user's own centre of gravity.

CURVED BACK PANEL AND COMFORT PADDING

All Evolution back packs are provided with a lightweight curved plastic panel. This plastic panel moulds the natural curvature of the spine when carried on the back. The Evolution II is also equipped with curved telescopic trolley handle, which is also designed to facilitate the curvature of the curved plastic panel when the bag is carried. The positioning of extra thick lumbar padding at the base of the bag provides for complete comfort and transfer of heavy loads onto the lower back area and hips. The back panel itself is supplied with extra thick high-density spine, rib and lumbar padding for your comfort. This padding comprises of three-dimensional mesh wicking material, which assists in drawing moisture away from the body. Special rib and spinal shape design provides for horizontal air passage across the back and provides cooling during prolonged carriage.

BACK STAVES

Further contoured back support is provided by the insertion of two aluminium staves, in sleeves between the plastic panel and spine and rib padding. These can be accessed under Velcro flaps by unzipping at the top of the shoulder padding. These staves can be shaped by hand, occasionally, to fit users back curvature.



HOW TO FIT YOUR "EVOLUTION II" BAKPAK

In order to ensure that you have the correct backpack size it is important that the following guidelines are adhered to. It would be a mistake to assume that tall individuals require large backpacks and all shorter individuals require small backpacks.

1) The first method for sizing is to simply hold the backpack up to the individual with the waist belt level with the hipbone. Ensure the back panel fits neatly to the shape of the individuals back.

2) The second method used for backpack sizing is using the individuals 'torso' size. A person's torso size and overall height are two completely unrelated measurements. Your fitter must firstly determine your torso size. This is done by measuring from the point where the shoulder slope meets the neck (seventh vertebrae) down the spine to the small of your back (top of the hip bone); *see figure ...* This measurement shall be your torso length and shall determine your backpack size most suitable for you. Its not just books that today's students carry to school or college. PE gear, musical instruments and lunch boxes all add to the weight. Set out below is some simple guidelines that can ease the burden of heavy school/college bags.

Set out below are typical torso sizing requirements for the "EVOLUTION II" Backpack Range:-

Small	Medium	Large	Extra Large	
15"-17"	17"-19"	19" - 21"	21+	
38-43cms	43-48cms	48-53cms	53+cm	

LOADING-UP

1. Parents/individuals should check the contents of their school bags regularly and ensure that only necessary items are carried for each school day.
2. Check if the school allows the student to leave books in the school that are not needed for homework / assignments.

3. Remember, it is not uncommon to be too lazy to pack and unpack your bag sensibly.
4. Check that you all your books do not have to be carried to and from school/college every day. Check your timetable and only bring what you need.
5. If the student/individual insists they need to bring home more books than they can comfortably carry you should consult the teacher.
6. Instead of carrying textbooks home make photo copies of relevant chapters and use these instead.
7. Ask the student/individual if their backpack is causing fatigue or pain. If the answer is yes lighten the load and adjust the bag fittings.
8. If the student/individual complains of back pain consult your GP or doctor.

LIFTING & CARRYING YOUR "EVOLUTION 11" BAKPAK SAFELY

To correctly put on your backpack the following steps should be taken.

Step 1. Lift the back pack with a straight back using the thigh muscles. Lift the backpack with both arms using the padded handle and keep the weight close to the body. Place the backpack onto a raised surface i.e. table or counter top. Remember when lifting you should always bend the knees and not the back.

Step 2. Prepare the shoulder straps ready for mounting onto the back. Step backwards to backpack and slowly bend the knees passing one arm at a time through the shoulders straps. Ensure the straps are correctly positioned on the upper body before lifting the backpack and straightening the knees. Great care should be taken when lifting your backpack directly from ground level. Do not swing backpack into position.

Step 3. Adjust the shoulder straps until the backpack is in the correct position.

Step 4. Buckle the hip/waist belt.

Push the hip/waist belt into the correct position adjust and tighten. You should feel the base of the bag fitting in snugly to the small of the back and resting on the hips. The buckle position should be the same as a normal trouser buckle.

Step 5. Buckle the sternum strap across the breast bone.

Step 6. Adjust the shoulder straps for maximum comfort.

Step 7. Pull the lower compression straps ensuring shoulder straps are tensioned to hold bag in place.

Step 8. Reach up and pull down the two top tension straps till top of bag is firmly against the shoulders

Please look out for the following signs, which could lead to bad posture and possible injury when carrying your backpack

1. If the individual has to lean forwards, the back pack is too heavy, incorrectly fitted or wrongly packed.
2. Carrying a backpack over one shoulder will cause back pain and lead to potential injury.
3. You should not change your posture to carry your backpack. If you do, it is too heavy. You should not struggle to get it on.
4. Loads carried by today's students are causing injuries that can last a lifetime. Back pain in children can increase as much as 10% per annum.

WARRANTY

'ODCC' Evolution backpacks are warranted to be free from defects in material and/or workmanship under normal use for a period of 12 months from date of purchase (purchaser to provide proof of date of purchase). This warranty excludes damage resulting from incorrect use or handling (elaborate). Faulty goods shall be repaired or replaced at the sole discretion of The Outdoor Concept Company.
