



National guidelines for use of autobelay from the Norwegian Climbing Federation

VISION

The Norwegian Climbing Federation's vision for autobelay climbing reads; *ground falls caused by the climber forgetting to attach oneself to the autobelay should never happen*. In order to achieve this goal, we will invite both climbing gyms, climbing clubs and individual climbers to make a joint effort to make the vision come true. The Norwegian Climbing Federation understands that some of the measures listed will take some time to introduce, such as fall-absorbing floors and that autobelay climbing should take place on separate walls/areas reserved for this, while other measures we hope will be introduced immediately.

Right now, unfortunately, we are far from achieving our goal. The number of accidents is steadily increasing, and these are often very serious accidents, sometimes with life-threatening injuries. This trend must be reversed! Our accident database shows that autobelay climbing is the climbing discipline that produces the most serious indoor climbing accidents. If the trend is not reversed, we fear that soon we will experience the first fatal indoor climbing accident in Norway, caused by a climber forgetting to clip in before climbing on autobelay. We were very close to this in January 2024. It has already happened in other countries, and we want to take measures to avoid this.



Visjon: bakkefall som skyldes at klatrer har glemt å feste seg i autobelay skal ikke forekomme.

Vision: Ground falls caused by the climber forgetting to attach oneself to the autobelay should never happen.

TRAINING AND COMPETENCE

The Norwegian Climbing Federation has developed standardized training for everyone who wants to climb autobelay and created a dedicated certificate of competence for this to order at brattkompetanse.no - Autobelaycard. [Here you can find information on the autobelay card at Brattkompetanse.no](#) and [here you will find the course template](#).

We recommend that all climbing gyms offer training and require at least an Autobelay card in order to climb on an autobelay. Autobelay training in must also be integrated in all climbing courses that lead to top rope certification or lead card certification.

GUIDELINES FOR CLIMBING GYMS

The Norwegian Climbing Federation recommends that these guidelines should be followed by all climbing gyms that offer autobelay climbing:

- All lines for autobelay climbing have large autobelay gates with printed information with a reminder to clip in and to get a partner check. The gates are rectangular with a minimum height of 150 cm and a minimum width equal to the distance between the bolt lines. The gates are large enough so that two neighboring sails stand shoulder to shoulder.
- All starting holds are completely hidden behind the autobelay gates so that it is impossible to climb the wall when the gate is up. Neither are there any climbing holds available on neighbor routes, cf. first bullet point. One must make it impossible to climb the routes when the autobelay gates are up, even if the climber actively tries to do so.
- All route setters have received training and understanding of the necessity of the point above. It is also included as part of the route setter instruction.
- It is impossible to attach the autobelay carabiner anywhere except than in the autobelay gate or in the climbing harness.
- Autobelay climbing takes place on separate walls/areas reserved for this¹. There are no lines for rope climbing close to the autobelay lines. This must be part of the planning of new climbing gyms.
- Quickdraws, to which the climber can attach oneself if forgetting to clip in, is available in the upper part of the wall, but not in the lower part. Remove e.g. the first two or three quickdraws, but provide quickdraws higher up.
- Implement routines for blocking access when the autobelay is taken down for service or similar.
- Unsupervised climbing on autobelay is only permitted for people who have completed standardized training and have been issued an Autobelay card, top rope card or lead card.
- A partner check is mandatory before climbing on the autobelay in addition to the self-check.

¹Until separate zones for autobelay climbing have been established, one should through route setting

Climbing hosts pay attention and corrects the climber if they observe climbers who do not receive a partner check. In this way, the center builds a safety regime that normalizes the need for a partner check before climbing on the autobelay.

- The gym does not allow climbing on autobelay when one is alone in the gym.
- The gym does not accept climbing with earphones. Loud music is not played over the loudspeaker system.

Info: There are now special developed climbing floor solutions that collapse and absorb energy if the climber falls from a great height. These protect against major injuries and death in the event of falls from heights of up to 16.5 metres. Although these are not yet in common use, consideration should be given to installing this type of flooring under the dedicated area for autobelay climbing.

GUIDELINES FOR CLIMBERS

The Norwegian Climbing Association recommends that the following guidelines should be followed by anyone who climbs autobelay:

- Make it part of your routine and a good habit to ask a climber next to you to carry out a partner check after you have done the self-check. Ask someone near you and be willing to offer the same if you are asked to do a partner check on someone else. A partner check before autobelay climbing consists of checking that the harness is correctly put on and that the carabiner from the autobelay is attached to the belay loop and is properly locked.
- Always carry out a functional test before starting to climb the autobelay. After you have attached yourself to the carabiner, you pull out some slack and release the strap. You then get to check that the autobelay tightens the strap when you climb.
- You can also test the braking function by climbing a couple of meters off the ground and dropping back down. Afterwards, you can climb further all the way to the top.

and other measures make it illogical to climb on neighboring lines to the autobelay lines.

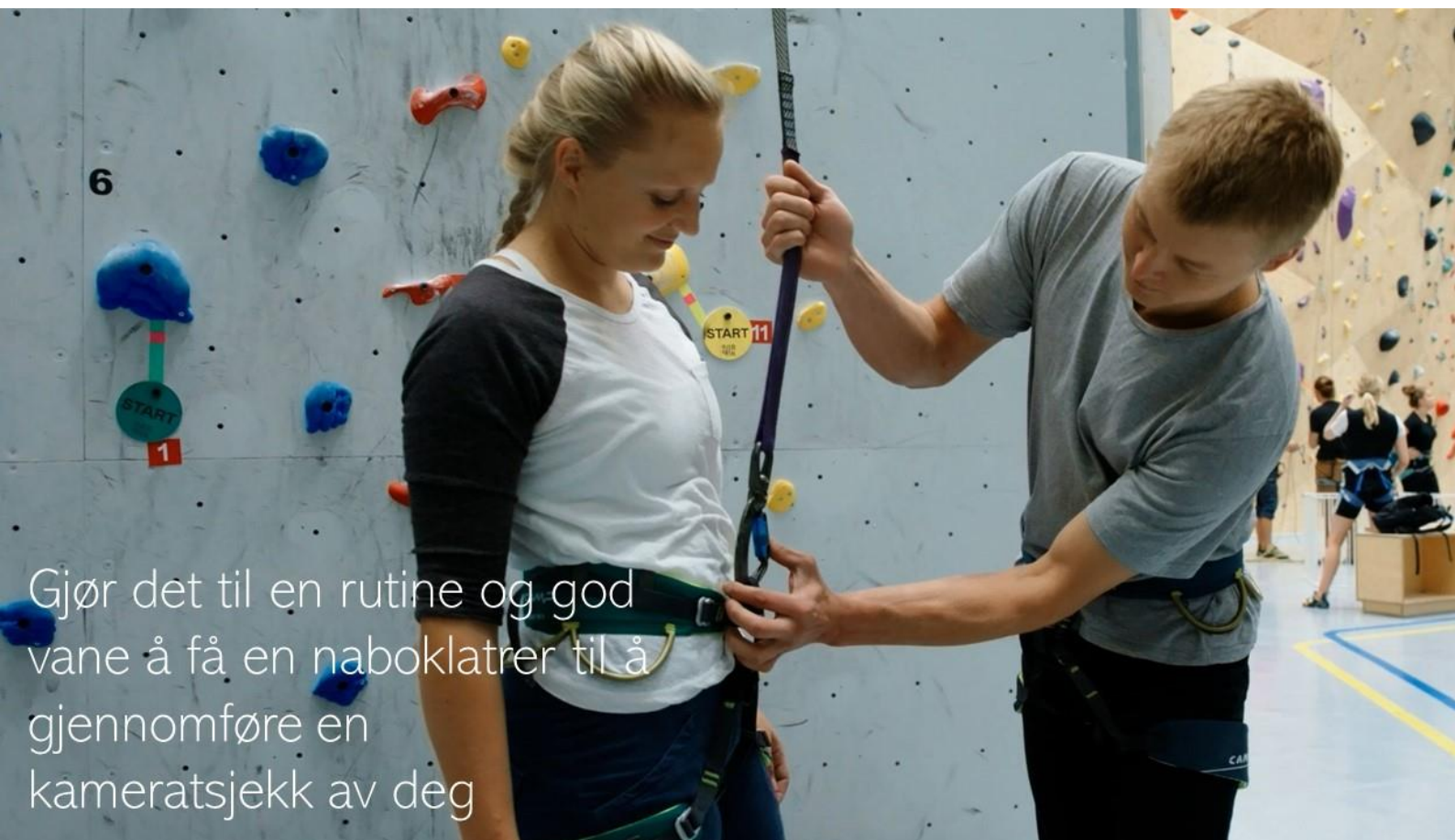
- Follow the guidelines and rules of the climbing gym. Never climb routes/lines that do not belong/top out at the autobelay you are connected to. Never climb too far to the side of the line, this to avoid pendulum falls.
- If something unexpected happens, don't panic, but assess the situation. Perhaps you can climb calmly and controlled down to the ground, or attach yourself to a quickdraw?
- Look down at the harness and make sure that the carabiner is correctly attached before you let go and descend in a controlled manner.
- Check that your landing area is clear of people if you are going to descend in a controlled manner. Let them know if anyone is in the way.
- Use all your senses, including your eyes and ears, when climbing. Don't block your sense of hearing with music on your ears. It both distracts you, and makes it impossible to hear if someone is trying to shout you vital information.
- Always remember to fasten the carabiner in the autobelay gate after you've finishing climbing. Do not attach it anywhere other than in the gate, not even temporarily. Do not release the strap up to the autobelay machine.

REASON FOR THE RECOMMENDATION

History of accidents: The first recorded accidents from climbing with an autobelay in Norway date back to 2015. This year we also recorded the first incident where a climber forgot to attach oneself to the carabiner before climbing, and thus in practice climbed the route free solo without being aware of it. The fall from a height of 6-7 meters resulted in large/complex fractures in the right and left heel, as well as a compression fracture of a lumbar vertebra in the spine.

In the following years, several incidents were recorded where climbers forgot to clip into the autobelay.

Some of these incidents did not result in injuries because the climber or other people present discovered what had happened before an accident occurred. Other incidents resulted in serious injuries, such as in Orkanger in 2016. Here, the climber fell to the ground from a height of 10 metres. The result was extensive damage to the legs and fractures. Both heels were crushed. There were several fractures in both legs, a fracture in the right thumb. The climber punctured both lungs and got serious



Gjør det til en rutine og god vane å få en naboklatrer til å gjennomføre en kameratsjekk av deg

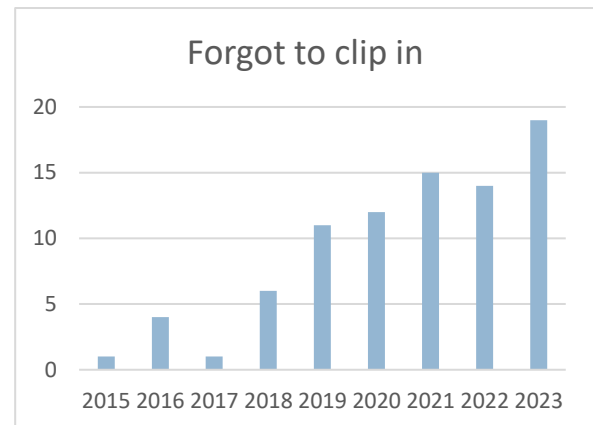
back injuries, which resulted in that four joints in the back had to be braced.

An obvious difference between autobelay climbing and roped climbing is that the partner check, which has become common practice in roped climbing is not as obvious or logical for autobelay climbing. After all, one "just" have to attach a carabiner to the harness, and anyone can do something that simple. But the statistics show that precisely this simple procedure is surprisingly often forgotten, with falls and subsequent injuries as a result. With this background, NKF's safety committee published the technical article "When the brain is alone" in 2017.

[The article is available here.](#) This was followed up by a new article "Autobetray" in 2018. [It is available here.](#)

Accidents continue to happen where autobelay climbers forget to clip in. Today we have more knowledge of which countermeasures are most effective to prevent the climber from forgetting to clip in than we had a few years ago, and these guidelines are based on the accumulated knowledge we have acquired during 9 years of recording autobelay incidents.

At the time of writing, 1 35 incidents of autobelay have been registered at www.ulykkesdatabasen.no, including a total of 83 incidents of free soloing where the climber has forgotten to clip in. In half of these incidents, the error was discovered by the climber or others in the room, and the situation did not result in an accident, while in the remaining half (42 cases) it ended with a ground fall. For the fall incidents, 20 ground falls have resulted in back injuries (fractures in vertebra) or more serious injuries. We also know that there have been more incidents with autobelay than have been reported to us. Unfortunately, these unreported incidents do not become part of the data we use in our accident prevention. We encourage everyone to report incidents to the accident database so that we get as accurate data as possible.



Number of climbers who forgot to clip in per year, registered in ulykkesdatabasen.no. The data is not complete due to incidents that have not been reported, so the real numbers are higher than the graph shows.

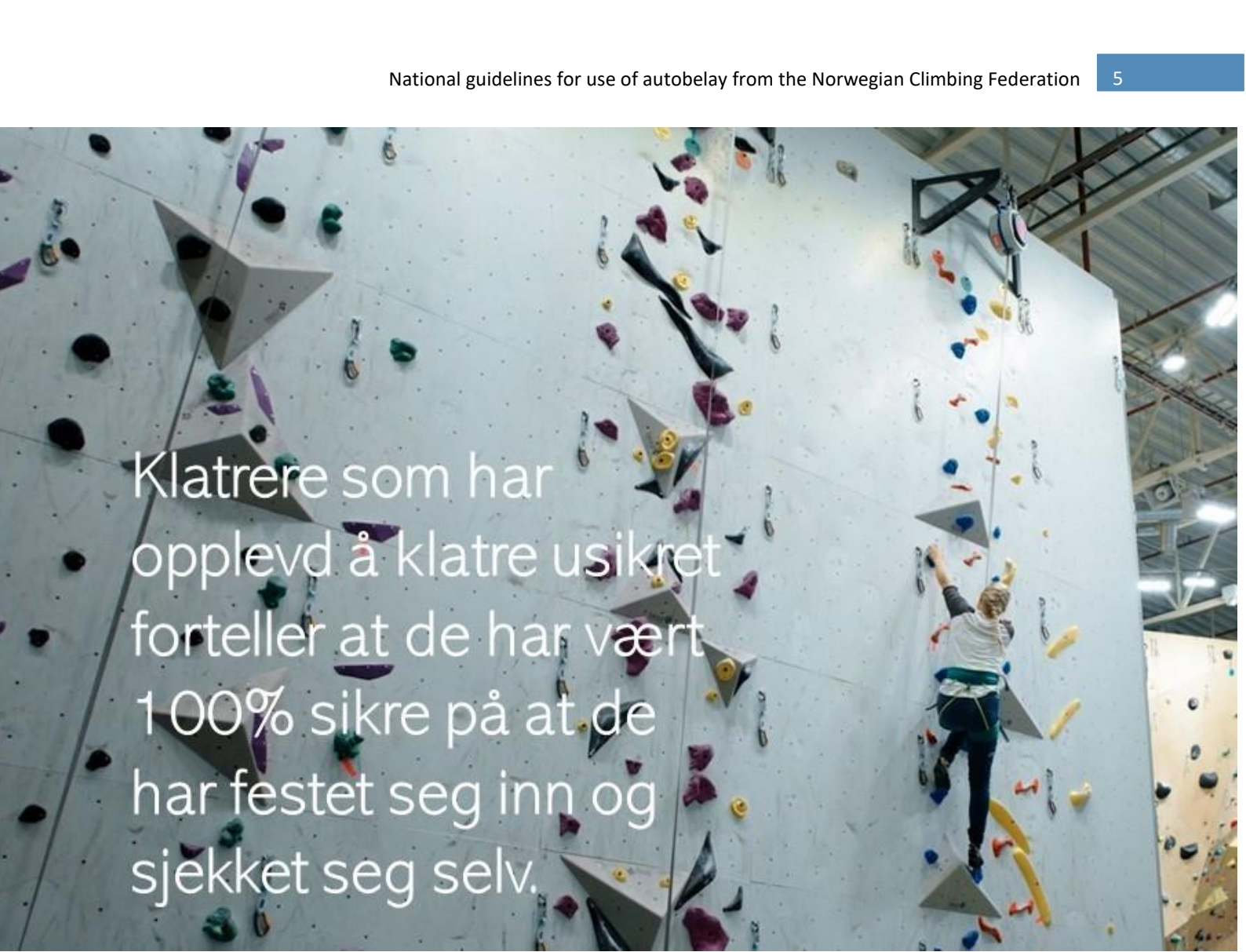
Unfortunately, we have not been able to stop or reverse the accident trend for autobelay using information only. The inherent risk is hidden when the system is apparently so simple and safe. It is the human factor with the absence of a partner check acting as a barrier that affects and creates an imbalance in the equation of inherent risk. We must work systematically and targeted towards both those who are going to climb on autobelays, but also ensure that climbing gyms are aware of their responsibility and do what they can to minimize the risk of forgetting to clip in.

It is easy to point at the individual climber who has forgotten the only thing that must be remembered - to clip in. Climbers are also quick to blame themselves for forgetting something as elementary as attaching the carabiner to the harness. But in a larger perspective when we look at the scope of the problem, and how many people have their quality of life permanently reduced by hitting the ground, this indicates that we have developed and are using a system that invites us to make life-threatening mistakes. The Product Control Act is clear that it is the responsibility of the service provider (climbing gym owner) to map risks and to minimize/remove the risk associated with the service offered (climbing on autobelay).

If every time an accident occurs, we place the blame for the accident on the individual climber who has made a mistake, how can we then build a healthy safety culture? With such an approach to the problem, we disclaim our responsibility for finding good and collective solutions to eliminate the inherent risk, and do not progress in the safety work.

No climbers come to the climbing center expecting to fall down and hurting themselves. If we accept this as our starting point, we have to treat personal mistakes made by the climber as symptoms of a deeper problem and act accordingly. The total amount of personal errors indicates that we are facing a system failure. It is both required and necessary to change our approach and attitude to the problem of climbing on autobelays.

Training: A survey carried out by NKF in 2023 shows large variations in what is provided by training and required competence in order to be able to climb on autobelay in various climbing gyms. An immediate measure that has already been mentioned is to standardize the training and be able to document that training has been given in the form of an Autobelay card. In this way, the wall owner will be able to document that necessary and sufficient training has been given to users of autobelay, cf. The Product Control Act.



Klatrere som har
opplevd å klatre usikret
forteller at de har vært
100% sikre på at de
har festet seg inn og
sjekket seg selv.

WHY DO CLIMBERS FORGET TO CLIP IN?

It is easy to think that a forgotten fastening is due to sloppiness. However, the pattern in the accidents suggests that it is not climbers who are sloppy, but the brain which is exposed to cognitive bias, or makes systematic errors. Climbers who have experienced climbing unsecured say that they have been 100% sure that they have fastened in and checked themselves. Serious autobelay accidents happen regardless of experience level, and happen there with moderate to experienced climbers as well

In 2024, the safety committee wrote a specialist article on why people forget to clip themselves in. [It is available here.](#)