I'm not a robot

How long can free divers hold their breath

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Il a surpassé le record précédent de 34 secondes, ce qui est très long lorsqu'on ne respire pas, et probablement plus long que la plupart des gens pourraient retenir leur souffle au total ! Budimir a tenté ce record à Sisak, en Croatie, pour promouvoir la ville après qu'elle ait été touchée par un fort tremblement de terre en décembre 2020. "Nous avons un gros problème ici en Croatie avec les tremblements de terre... la situation est grave actuellement en Croatie", a déclaré Budimir lorsqu'il a demandé le record. "Nous espérons collecter des fonds pour les personnes dans le besoin, car les tremblements de terre détruisent toute la ville de Petrinja", a-t-il poursuivi. Budimir a décrit cela comme "impossible à entraîner" au début de cette année, en raison des dégâts causés par le tremblement de terre. Cependant, le plongeur libre de 56 ans était déterminé à battre ce record et a persévéré dans son entraînement dès que possible. Bien sûr, cela a pris plus de quelques semaines pour perfectionner sa technique de respiration et s'entraîner pour ce record. "Ce record n'est pas arrivé par hasard. J'ai mis tout mon effort dedans. Je me préparais pour ce record depuis plus de 3 ans. J'ai entraîné 6 jours sur 7." "Ce voyage est difficile et rempli de situations inattendues où vous pouvez facilement rester coincé", a déclaré Budimir. Malgré les difficultés et les dangers qui accompagnent la tentative d'un record comme celui-ci, Budimir est motivé par la pensée de sa fille. "La plus grande motivation de toutes est ma fille de 21 ans, Saša, qui est autiste. Mes résultats me donnent l'espace médiatique et puis je peux parler de la sensibilisation à l'autisme." Cependant, lorsqu'il a tenté le record, il était concentré sur une seule chose - son rythme cardiaque. "Lorsque je fais mon apnée statique maximale, j'ai les yeux fermés et je me concentre uniquement pour essayer d'entendre mon rythme cardiaque. Une fois que je l'ai entendu, je suis devenu calme et prêt à lutter contre le temps." Et il a lutté contre le temps ! 24 minutes et 37,36 secondes plus tard, il avait sécurisé un nouveau record du monde. Avant la tentative, Budimir a hyperventilé avec de l'oxygène pur - les directives pour ce record autorisent cela jusqu'à 30 minutes avant le début de la tentative. Ce qui rend l'accomplissement de Budimir encore plus remarquable, c'est qu'il n'a commencé la plongée libre qu'à l'âge de 48 ans. "Je suis accro à l'entraînement de tout type, donc je n'ai pas de problème avec la motivation et je ne cesse jamais de rêver d'obtenir les meilleurs résultats, malgré mon âge. Maintenant, j'ai prouvé que tout est possible si vous êtes fort et dédié." "En fait, mon âge m'a donné le bénéfice de l'expérience pour rester calme aux moments critiques." Budimir emphasizes the importance of mental strength in freediving, stating that it's a "mental sport" where one must be stronger than their mind to succeed. He shares his top three tips for aspiring freedivers: thoroughly training, avoiding shortcuts, and prioritizing proper technique. Freediving has come a long way since its inception, with the longest time breath held voluntarily recorded at 24 minutes and 3.45 seconds by Aleix Segura Vendrell in Barcelona, Spain. This record surpasses the first documented attempt by Robert Foster, who held his breath for 13 minutes and 42.5 seconds. Amelia de los Rios, a professional freediver, has showcased her skills by breaking multiple Guinness World Records titles. She attributes her ability to blow air rings underwater to her freediving training and shares her technique, which involves putting pressure in the cheeks and using the tongue to form the ring. The challenge lies not in forming the ring itself but rather doing it at the right depth and rhythm. Amelia's experience is a testament to how freediving can be accessible to anyone, regardless of their physical abilities. She began as a non-athletic child who struggled with physical education, but found her "superpower" in breath-holding activities. Her records include blowing 56 air rings in a minute and holding her breath for 6 minutes and 58 seconds in static apnea. Freediving encompasses various disciplines, including snorkeling and competitive underwater timing. The sport has led to numerous Guinness World Records titles, with over 50 existing records related to freediving. Free divers can plunge to extreme depths without breathing equipment, with the current record standing at 214m. Champions can hold their breath for remarkably long periods, with women's records at nine minutes and men's at 11. As a doctor specializing in extreme environments, I was fascinated by an art project about free diving for the Wellcome Collection's Somewhere in Between exhibition. The physiology of free diving seems almost impossible due to the immense stress it puts on the body. However, when you consider climbing Everest without additional support, aside from protective clothing, it becomes apparent that the human body can adapt to extreme conditions. The real challenge lies in the rapid pressure changes underwater, where a 10m descent adds an extra atmosphere of pressure, doubling the pressure experienced at the surface. This compression affects the body's anatomy and physiology, making deep-sea diving uniquely difficult. The pressure alters blood gases, affecting the nervous system and other bodily functions. Initially, physiologists believed that free divers couldn't exceed 30-40 meters due to the risk of lung damage and other complications. However, free divers have surpassed these limits, with their success attributed to mental rather than physical abilities. According to Martina Amati, a free diver and artist involved in the project, the key to this extreme sport lies in mental training, letting go of emotions while staying aware of one's body and surroundings. The most critical part of a deep dive is the final ascent stage, where the risk of shallow water black-out occurs due to the sudden drop in oxygen levels as pressure fades. To overcome these challenges, free divers must develop a unique mindset that combines physical endurance with mental toughness and awareness. By understanding the physiological effects of pressure on the human body, we can appreciate the remarkable achievements of free divers and the importance of mental preparation in this extreme sport. The dive is hard to explain, yet it's a natural part of the experience. For divers, the initial buoyancy is followed by resistance as they descend, until around 13-20m deep where their body begins to sink like a stone. This free-fall phase can feel like being born again and has a unique effect on the body. As Martina Amati explains, the changing chemistry of the bloodstream allows gases to dissolve more easily, creating a sense of euphoria. Free divers must navigate a precarious balance between the pressures that support them and the life-threatening effects of breath-holding. The depth records are astonishing, with hundreds of meters reached by some individuals. The experience is not just about physical limits but also about a holistic connection to nature, which can be difficult for scientists to understand. For free divers, this feeling is inextricably linked to their practice, whereas scientists view it as a potential source of danger. The collaboration between artists and physiologists like Kevin Fong can reveal new insights into the boundaries between life and death. By exploring both sides of this experience, we can learn from each other's perspectives. Freediving levels range from basic to advanced certification offered by PADI. The Basic Freediver course is for beginners aged 12+ and focuses on breath-holding techniques, with an aim to hold breath for 90 seconds static and 25 meters dynamic. In the Basic Freediver Course, students must demonstrate proficiency in both static and dynamic apnea, along with other performance requirements. This course builds upon knowledge of freediving techniques and safety procedures. The Advanced Freediver Course is designed for experienced freedivers aged 15+ who want to improve their skills further. Students must complete a series of dives, including constant weight freedives, and demonstrate advanced breathing techniques. The pinnacle of certification in the PADI Freediver Program is the Master Freediver Course, where participants are pushed to their limits but still remain achievable with dedication and training. To achieve this high level of expertise, students must complete a series of challenging tasks, including a minimum of one static apnea attempt lasting 3 minutes 30 seconds, and dynamic apnea for at least 70 meters/230 feet. This intense training helps participants understand the key to breath-hold training: not a lack of oxygen, but rather the buildup of carbon dioxide in the body that triggers the urge to breathe. Through relaxation techniques and movement efficiency training, freedivers can learn to conserve energy and metabolize oxygen slower, allowing them to hold their breath for extended periods. Additionally, understanding how diet and eating habits affect performance is crucial for optimal results. Those interested in freediving and certification should start with the PADI Freediver Course, which includes a Confined Water Session, Master Freediver Assignment, and two Open Water Sessions. By enrolling in this course, students will gain valuable knowledge on relaxation techniques, movement efficiency, and how their diet affects their breath-hold performance. They'll also be able to extend their breath-holding times by learning to relax and conserve energy underwater. To find a PADI dive shop near you or for more freediving tips for beginners, check out the link provided.