

pool and spa operator handbook pdf

pool and spa operator handbook pdf is an essential resource for professionals managing aquatic facilities, ensuring safety, compliance, and operational efficiency. This comprehensive guide covers all critical aspects of pool and spa management, including water chemistry, maintenance protocols, safety standards, and emergency response procedures. By utilizing the pool and spa operator handbook pdf, operators can enhance their knowledge of filtration systems, sanitation methods, and regulatory requirements. This handbook also serves as an educational tool for training staff and maintaining high standards of hygiene and safety in recreational water environments. Understanding the content of this handbook is vital for reducing risks associated with waterborne illnesses and accidents. The following sections will explore the handbook's key components, practical applications, and benefits for pool and spa operators.

- Overview of the Pool and Spa Operator Handbook PDF
- Water Chemistry and Quality Control
- Maintenance and Equipment Management
- Safety and Regulatory Compliance
- Emergency Procedures and Incident Management
- Training and Certification Resources

Overview of the Pool and Spa Operator Handbook PDF

The pool and spa operator handbook pdf provides a detailed framework for managing public and private aquatic facilities effectively. It is designed to assist operators in understanding the technical and regulatory requirements necessary to maintain safe and clean water environments. The handbook typically includes guidelines on water treatment, mechanical systems, and operational best practices. By following the instructions and recommendations outlined in the handbook, operators can minimize the risk of equipment failure, contamination, and safety hazards. This document is updated regularly to reflect the latest industry standards and scientific research related to pool and spa operation.

Purpose and Scope

The primary purpose of the pool and spa operator handbook pdf is to serve as a comprehensive reference for maintaining water quality and ensuring the safety of bathers. It covers a wide range of topics, from routine maintenance tasks to emergency responses and regulatory compliance. The scope extends to both commercial and residential pools and spas, making it applicable to a variety of facility types. The handbook supports operators in meeting local and national health codes and environmental guidelines.

Accessibility and Format

One of the advantages of the pool and spa operator handbook pdf is its accessibility in a digital format, allowing operators to easily download, search, and reference critical information on demand. The PDF format supports clear organization of content with tables, charts, and illustrations that enhance understanding. Many health departments and industry organizations provide this handbook as a free or low-cost resource to promote standardized practices across the aquatic industry.

Water Chemistry and Quality Control

Maintaining proper water chemistry is fundamental to the safe operation of pools and spas. The pool and spa operator handbook pdf offers in-depth guidance on balancing chemical levels to prevent microbial growth and protect equipment. Understanding the principles of water chemistry helps operators control pH, alkalinity, hardness, and disinfectant concentrations effectively.

Key Chemical Parameters

The handbook outlines the critical chemical parameters that must be monitored regularly, including:

- **pH Levels:** Maintaining a pH range typically between 7.2 and 7.8 to optimize disinfectant efficiency and minimize irritation.
- **Free Chlorine or Bromine:** Ensuring adequate sanitizer levels to kill pathogens and prevent algae.
- **Total Alkalinity:** Stabilizing pH by buffering against rapid changes.
- **Calcium Hardness:** Preventing corrosion or scaling of pool surfaces and equipment.
- **Cyanuric Acid:** Protecting chlorine from degradation by sunlight in outdoor pools.

Water Testing Procedures

The handbook details standardized methods for collecting and analyzing water samples. Operators are encouraged to use reliable test kits or electronic analyzers to measure chemical parameters accurately. Regular testing schedules—daily, weekly, or as mandated by regulations—are emphasized to maintain consistent water quality. Proper documentation and record-keeping of test results are also discussed to ensure traceability and regulatory compliance.

Maintenance and Equipment Management

Efficient maintenance and management of pool and spa equipment are vital to operational success. The pool and spa operator handbook pdf provides comprehensive instructions on maintaining filtration systems, pumps, heaters, and sanitation equipment to prolong lifespan and ensure optimal

performance.

Filtration System Maintenance

The handbook explains the importance of maintaining clean and functional filters to remove debris and contaminants from the water. Different types of filters—sand, cartridge, and diatomaceous earth—are covered, with specific maintenance schedules and troubleshooting tips. Routine backwashing and inspection procedures are outlined to prevent clogging and maintain water clarity.

Equipment Inspection and Repair

Regular inspection of mechanical and electrical components is necessary to identify wear and potential failures early. The handbook recommends checklists for daily, weekly, and monthly inspections, focusing on pump operation, heater functionality, and chemical feeders. Guidance on proper repair techniques and when to engage professional technicians is also included to maintain safety and compliance.

Cleaning and Facility Upkeep

Beyond mechanical maintenance, the handbook stresses the importance of cleaning pool surfaces, decks, and surrounding areas to reduce contamination risks. Best practices for removing algae, dirt, and biofilm are provided, along with recommendations for using appropriate cleaning agents and equipment.

Safety and Regulatory Compliance

Adherence to safety protocols and regulatory requirements is a cornerstone of responsible pool and spa operation. The pool and spa operator handbook pdf serves as a critical resource for understanding applicable laws, standards, and best practices to protect patrons and staff.

Health and Safety Standards

The handbook highlights key health regulations governing water quality, sanitation, and facility design. It covers topics such as maximum bather loads, lifeguard requirements, signage, and accessibility standards. Operators learn to implement measures that reduce the risk of waterborne diseases, drowning, and injuries.

Regulatory Agencies and Compliance

Details about federal, state, and local regulatory bodies responsible for enforcing pool and spa codes are included. The handbook guides operators on how to prepare for inspections, submit necessary documentation, and address violations promptly. Understanding the legal framework helps facilities avoid penalties and maintain public trust.

Risk Management Practices

Effective risk management strategies are essential to minimize liability and ensure safe operation. The handbook discusses hazard identification, staff training, emergency planning, and record keeping as integral components of a comprehensive safety program.

Emergency Procedures and Incident Management

Preparedness for emergencies is critical in aquatic environments where risks of accidents and health incidents are present. The pool and spa operator handbook pdf provides detailed protocols for responding to various emergencies to safeguard lives and property.

Common Emergencies

Operators are educated on handling incidents such as drowning, chemical spills, power outages, and equipment failures. The handbook emphasizes quick assessment, communication, and appropriate first aid or evacuation measures.

Emergency Action Plans

Developing and implementing clear emergency action plans is a focal point. The handbook outlines steps for creating these plans, including assigning roles, training personnel, and conducting drills to ensure readiness.

Incident Documentation and Reporting

Proper documentation of incidents and near-misses is necessary for legal compliance and continuous improvement. The handbook provides templates and guidelines for accurate reporting, which aids in identifying trends and preventing future occurrences.

Training and Certification Resources

Continuous education and certification are vital for pool and spa operators to stay current with industry standards and enhance their professional skills. The pool and spa operator handbook pdf often includes references to training programs and certification bodies.

Operator Training Programs

The handbook recommends accredited training courses covering water chemistry, equipment maintenance, safety, and emergency response. These programs improve operator competence and confidence, contributing to safer aquatic environments.

Certification and Licensing

Certification requirements vary by jurisdiction, but the handbook provides guidance on obtaining and maintaining certifications recognized by health departments and industry organizations. It outlines prerequisites, examination content, and renewal processes.

Continuing Education

The dynamic nature of pool and spa technology and regulations necessitates ongoing education. The handbook encourages operators to participate in workshops, seminars, and online courses to remain informed of new developments and best practices.

Frequently Asked Questions

What is the 'Pool and Spa Operator Handbook PDF'?

The 'Pool and Spa Operator Handbook PDF' is a comprehensive guide designed to help pool and spa operators understand the principles of safe and effective pool and spa operation, including water chemistry, maintenance, and safety protocols.

Where can I download the 'Pool and Spa Operator Handbook PDF'?

The handbook is often available for free download on official public health or government websites related to aquatic facility management, or from professional pool and spa associations.

Why is the 'Pool and Spa Operator Handbook PDF' important for pool operators?

It provides essential knowledge on maintaining water quality, ensuring safety, and complying with health regulations, which helps prevent waterborne illnesses and accidents.

Does the 'Pool and Spa Operator Handbook PDF' cover water chemistry basics?

Yes, it typically includes detailed explanations of water chemistry, including pH, chlorine levels, alkalinity, and other important parameters for safe pool and spa operation.

Is the 'Pool and Spa Operator Handbook PDF' useful for beginners?

Absolutely, the handbook is designed to be user-friendly and educational, making it suitable for both beginners and experienced operators.

Are there updated versions of the 'Pool and Spa Operator Handbook PDF'?

Yes, the handbook is periodically updated to reflect new health guidelines, technology, and best practices in pool and spa management.

Can the 'Pool and Spa Operator Handbook PDF' help with pool inspection preparation?

Yes, the handbook provides guidance on standards and procedures that can help operators prepare for health and safety inspections.

Does the 'Pool and Spa Operator Handbook PDF' include emergency response information?

Many versions of the handbook include sections on emergency procedures and how to handle common pool and spa-related incidents.

Is the 'Pool and Spa Operator Handbook PDF' applicable to residential pools?

While primarily focused on public and commercial pools, much of the information is also relevant and useful for residential pool owners and operators.

How often should pool operators refer to the 'Pool and Spa Operator Handbook PDF'?

Operators should regularly consult the handbook to stay informed about best practices, especially before the start of the swimming season or when regulations change.

Additional Resources

1. Certified Pool Operator Handbook

This comprehensive handbook is a go-to resource for pool operators seeking certification. It covers essential topics such as water chemistry, filtration, sanitation, and safety protocols. The book is designed to help operators maintain clean, safe, and compliant swimming pools and spas.

2. Pool & Spa Operator Handbook: Principles of Water Chemistry

Focused on the science behind water treatment, this handbook delves into the chemical principles that keep pools and spas safe and enjoyable. It explains the balance of pH, alkalinity, and sanitizer levels, as well as troubleshooting common water problems. The guide is ideal for operators looking to deepen their understanding of pool chemistry.

3. Public Pool and Spa Operator Training Manual

This training manual provides detailed instructions and guidelines for public pool and spa operators. It emphasizes health regulations, maintenance procedures, and emergency response strategies. The

manual is a valuable tool for ensuring public safety and regulatory compliance.

4. Swimming Pool and Spa Maintenance: A Practical Guide

Offering practical advice, this book helps operators with daily maintenance tasks, including cleaning, equipment checks, and water testing. It also covers seasonal care and troubleshooting equipment issues. The guide is suitable for both residential and commercial pool operators.

5. Pool and Spa Water Chemistry: A Field Guide

This field guide is a quick reference for pool professionals managing water quality on-site. It includes charts, tables, and step-by-step procedures for testing and adjusting chemical levels. The book is designed to be a handy companion for routine water quality management.

6. Health and Safety in Pool and Spa Operations

Focusing on the health and safety aspects, this book outlines best practices for preventing accidents and illnesses in aquatic facilities. Topics include disinfection methods, risk assessments, and compliance with health codes. It is essential reading for operators committed to maintaining a safe environment.

7. Advanced Pool Operator's Manual

This manual targets experienced operators seeking advanced knowledge in pool system design, automation, and advanced water treatment technologies. It explores innovative solutions for energy efficiency and environmental sustainability. The book is ideal for professionals aiming to enhance their technical expertise.

8. Pool and Spa Equipment Handbook

Detailing the various types of equipment used in pools and spas, this handbook covers pumps, filters, heaters, and sanitizers. It provides guidance on installation, maintenance, and troubleshooting common equipment issues. This resource is useful for operators responsible for the mechanical aspects of aquatic facilities.

9. Emergency Response Guide for Pool and Spa Operators

This guide prepares pool operators for handling emergencies such as chemical spills, equipment failures, and medical incidents. It includes protocols for quick response, communication, and incident documentation. The book emphasizes readiness and safety in emergency situations.

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Pool and Spa Operator Handbook PDF

The Complete Guide to Safe and Efficient Pool and Spa Management

By: AquaPro Management Solutions

Outline:

Introduction: The Importance of Proper Pool and Spa Operation

Chapter 1: Water Chemistry and Treatment: Maintaining Balanced Water for Health and Safety

Chapter 2: Equipment Operation and Maintenance: Understanding and Caring for Your Pool and Spa Systems

Chapter 3: Safety and Risk Management: Preventing Accidents and Ensuring Compliance

Chapter 4: Cleaning and Sanitation: Effective Techniques for Maintaining Hygiene

Chapter 5: Regulatory Compliance and Legal Aspects: Understanding and Meeting Local and National Regulations

Chapter 6: Customer Service and Management: Providing Excellent Service to Patrons

Chapter 7: Troubleshooting Common Pool and Spa Problems: Quick Fixes and Solutions

Chapter 8: Budgeting and Financial Management: Controlling Costs and Maximizing Profits

Conclusion: Sustaining Success in Pool and Spa Operation

Pool and Spa Operator Handbook: Your Comprehensive Guide to Success

Running a successful pool and spa operation requires more than just filling a pool with water. It demands a comprehensive understanding of water chemistry, equipment maintenance, safety procedures, and customer service. This handbook provides a detailed guide, covering all the essential aspects to help you manage your facility effectively and safely.

Introduction: The Importance of Proper Pool and Spa Operation

The pool and spa industry is a dynamic sector offering relaxation, recreation, and therapeutic benefits. However, the operation of these facilities necessitates meticulous attention to detail, prioritizing safety and hygiene above all else. Proper operation isn't merely about maintaining aesthetically pleasing water; it's about safeguarding public health and complying with legal standards. Negligence can lead to health risks, legal repercussions, and reputational damage. This handbook serves as your essential resource to navigate the intricacies of running a successful and responsible pool and spa establishment. It equips you with the knowledge and strategies necessary to ensure your facility thrives while upholding the highest standards of safety and customer satisfaction.

Chapter 1: Water Chemistry and Treatment: Maintaining Balanced Water for Health and Safety

Maintaining balanced water chemistry is paramount for both the health of your patrons and the longevity of your pool and spa equipment. Understanding the interplay of pH, alkalinity, calcium hardness, and sanitizer levels is crucial. This chapter delves into the following:

Understanding Water Chemistry Basics: A clear explanation of pH, alkalinity, calcium hardness, and their impact on water quality.

Sanitizer Selection and Application: Discussing various sanitizing methods (chlorine, bromine, saltwater systems), their pros and cons, and appropriate application techniques. This includes safe handling procedures for chemicals.

Testing and Monitoring Water Quality: Detailed instructions on using test strips, electronic meters, and other testing methods to accurately measure water parameters.

Troubleshooting Chemical Imbalances: Strategies for correcting common water chemistry problems, such as high or low pH, low sanitizer levels, and algae growth. This includes step-by-step corrective actions.

Water Treatment for Spas: Addressing the unique chemical requirements of spas, including the use of oxidizers and other specialized treatments.

Regular and accurate testing is the cornerstone of successful water treatment. Ignoring water chemistry can lead to cloudy water, irritated skin and eyes, corrosion of equipment, and even the growth of harmful bacteria and algae, posing serious health risks to your patrons.

Chapter 2: Equipment Operation and Maintenance: Understanding and Caring for Your Pool and Spa Systems

Proper equipment operation and maintenance are vital for maintaining water quality, extending the lifespan of your equipment, and minimizing operational costs. This chapter will cover:

Pump Operation and Maintenance: Understanding different pump types, troubleshooting common pump issues, and performing regular maintenance tasks such as cleaning pump baskets and replacing worn parts.

Filter Maintenance and Cleaning: Different filter types (sand, cartridge, DE), backwashing procedures, and cleaning techniques to ensure optimal filtration.

Heater Operation and Maintenance: Understanding gas and electric heaters, troubleshooting issues, and performing preventative maintenance.

Sanitizer System Maintenance: Regular cleaning and maintenance of chlorinators, bromine generators, and saltwater systems.

Automatic Chemical Dispensers: Proper setup, calibration, and troubleshooting of automatic chemical feeders.

Regular preventative maintenance significantly reduces the risk of equipment failure and costly repairs. A well-maintained system ensures consistent water quality and optimal energy efficiency.

Chapter 3: Safety and Risk Management: Preventing Accidents and Ensuring Compliance

Safety is non-negotiable in the pool and spa industry. This chapter emphasizes proactive risk management strategies:

Water Safety Rules and Regulations: Clear guidelines for patrons, including rules about diving, swimming without supervision, and the use of flotation devices.

Emergency Procedures: Establishing clear protocols for handling accidents, injuries, and emergencies, including CPR and first aid procedures.

Lifeguard Training and Supervision: The importance of properly trained lifeguards and adequate supervision ratios.

Chemical Safety: Safe handling, storage, and disposal of pool and spa chemicals to minimize risks.

Electrical Safety: Regular inspections of electrical equipment to prevent shocks and electrocution.

Slip and Fall Prevention: Strategies for reducing the risk of slip and fall accidents, including proper maintenance of walkways and surfaces.

Proactive safety measures not only protect your patrons but also shield your business from liability and potential legal ramifications.

Chapter 4: Cleaning and Sanitation: Effective Techniques for Maintaining Hygiene

Maintaining a clean and hygienic environment is essential for the health and well-being of your patrons. This chapter focuses on effective cleaning and sanitation techniques:

Daily Cleaning Procedures: Routine tasks such as cleaning pool decks, removing debris, and emptying skimmer baskets.

Regular Cleaning of Equipment: Thorough cleaning of filters, pumps, and other equipment to remove buildup and maintain efficiency.

Disinfection and Sanitization Techniques: Using appropriate disinfectants and sanitizers to kill bacteria and viruses on surfaces.

Waste Management: Proper disposal of waste materials, including chemicals and debris.

Algae Prevention and Removal: Effective strategies for preventing and removing algae growth.

Regular cleaning and sanitation practices prevent the spread of disease and maintain a pleasant environment for your customers.

Chapter 5: Regulatory Compliance and Legal Aspects: Understanding and Meeting Local and National Regulations

Compliance with local, state, and national regulations is crucial for avoiding fines and legal issues. This chapter will cover:

Understanding Health Codes and Regulations: Specific requirements for water quality, safety, and sanitation.

Licensing and Permits: Obtaining necessary permits and licenses to operate legally.

Insurance Requirements: Protecting your business with appropriate liability insurance.

Accessibility Standards: Compliance with accessibility regulations for individuals with disabilities.

Record Keeping: Maintaining accurate records of water testing, chemical usage, and maintenance procedures.

Staying informed about and adhering to regulations ensures smooth operation and protects your business from legal challenges.

Chapter 6: Customer Service and Management: Providing Excellent Service to Patrons

Exceptional customer service is key to building loyalty and attracting repeat business. This chapter covers:

Providing a Welcoming and Safe Environment: Creating a positive atmosphere for patrons.

Effective Communication: Clearly communicating rules, regulations, and safety guidelines.

Addressing Customer Complaints: Handling complaints professionally and effectively.

Building Customer Relationships: Strategies for creating a loyal customer base.

Staff Training: Providing adequate training to staff members on customer service and safety procedures.

Positive customer experiences are vital for building a thriving business.

Chapter 7: Troubleshooting Common Pool and Spa Problems: Quick Fixes and Solutions

This chapter provides quick solutions to common issues:

Cloudy Water: Identifying and resolving causes of cloudy water.

Algae Growth: Effective methods for treating and preventing algae blooms.

Equipment Malfunctions: Troubleshooting common problems with pumps, filters, and heaters.

Chemical Imbalances: Correcting common chemical imbalances.

Leaks and Repairs: Identifying and repairing leaks in pipes and equipment.

Chapter 8: Budgeting and Financial Management: Controlling Costs and Maximizing Profits

Managing finances effectively is crucial for long-term success:

Developing a Budget: Creating a realistic budget that considers all expenses and revenue streams.

Cost Control Strategies: Implementing strategies to minimize operational costs.

Pricing Strategies: Setting competitive and profitable prices.

Financial Record Keeping: Maintaining accurate financial records.

Profitability Analysis: Regularly analyzing profitability to identify areas for improvement.

Conclusion: Sustaining Success in Pool and Spa Operation

Successfully operating a pool and spa requires a commitment to safety, hygiene, and customer satisfaction. By implementing the strategies and knowledge outlined in this handbook, you can create a thriving business that provides a safe and enjoyable experience for your patrons while adhering to all relevant regulations.

FAQs

1. What are the most common pool water problems? Cloudy water, algae growth, and chemical imbalances are common problems.
2. How often should I test my pool water? Ideally, pool water should be tested daily, especially during peak season.
3. What are the different types of pool filters? Sand, cartridge, and diatomaceous earth (DE) filters are common types.
4. How do I prevent accidents at my pool? Implementing safety rules, providing adequate supervision, and having emergency procedures in place are crucial.
5. What are the legal requirements for operating a pool? Regulations vary by location, but typically include licensing, permits, and adherence to health codes.
6. How can I improve customer service at my pool? Training staff, providing a welcoming environment, and addressing customer complaints effectively are key.
7. How can I save money on pool operation costs? Regular maintenance, energy-efficient equipment, and smart chemical usage can help reduce costs.
8. What should I do if there's a chemical spill? Follow emergency procedures, contact emergency services, and refer to the chemical's safety data sheet.
9. Where can I find more information on pool and spa regulations? Contact your local health department or regulatory agencies.

Related Articles

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2. Pool Pump Troubleshooting Guide: A detailed guide to troubleshooting common pool pump problems.
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4. Pool and Spa Water Chemistry Explained: A comprehensive explanation of pool water chemistry and its importance.
5. Preventing Accidents at Public Pools: Strategies for minimizing accidents and ensuring patron safety.
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9. Pool and Spa Equipment Maintenance Schedule: A sample maintenance schedule for various pool and spa equipment.

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The Pool & Spa Operator(tm) Handbook, the official text for the Certified Pool/Spa Operator® (CPO®) certification program has been written to provide information and guidelines for the operation of spas and swimming pools used by the public.

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pool and spa operator handbook pdf: *Human Dimension and Interior Space* Julius Panero, Martin Zelnik, 2014-01-21 The study of human body measurements on a comparative basis is known as anthropometrics. Its applicability to the design process is seen in the physical fit, or interface, between the human body and the various components of interior space. *Human Dimension and Interior Space* is the first major anthropometrically based reference book of design standards for use by all those involved with the physical planning and detailing of interiors, including interior designers, architects, furniture designers, builders, industrial designers, and students of design. The use of anthropometric data, although no substitute for good design or sound professional judgment should be viewed as one of the many tools required in the design process. This comprehensive overview of anthropometrics consists of three parts. The first part deals with the theory and application of anthropometrics and includes a special section dealing with physically disabled and elderly people. It provides the designer with the fundamentals of anthropometrics and a basic understanding of how interior design standards are established. The second part contains easy-to-read, illustrated anthropometric tables, which provide the most current data available on

human body size, organized by age and percentile groupings. Also included is data relative to the range of joint motion and body sizes of children. The third part contains hundreds of dimensioned drawings, illustrating in plan and section the proper anthropometrically based relationship between user and space. The types of spaces range from residential and commercial to recreational and institutional, and all dimensions include metric conversions. In the Epilogue, the authors challenge the interior design profession, the building industry, and the furniture manufacturer to seriously explore the problem of adjustability in design. They expose the fallacy of designing to accommodate the so-called average man, who, in fact, does not exist. Using government data, including studies prepared by Dr. Howard Stoudt, Dr. Albert Damon, and Dr. Ross McFarland, formerly of the Harvard School of Public Health, and Jean Roberts of the U.S. Public Health Service, Panero and Zelnik have devised a system of interior design reference standards, easily understood through a series of charts and situation drawings. With *Human Dimension and Interior Space*, these standards are now accessible to all designers of interior environments.

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pool and spa operator handbook pdf: Managing Health and Safety in Swimming Pools The Health and Safety Executive, 2003-01 This booklet provides guidance for those who have any involvement with the operation and management of health and safety in swimming pools: primarily pool owners (including local authority clients), pool operators (including management contractors), architects, engineers, designers, manufacturers and constructors. Aspects of this guidance will also apply to pool hirers. Its aim is to provide guidance on the risks associated with swimming pool operation and the precautions which may be taken to help achieve a safer environment for people who use swimming pools and employees who work at them. The revision brings the guidance up to date with changes in health and safety law and new developments in relation to equipment, facilities and supervision arrangements.

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injuries from falls from high springboards.

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