Perfect Synergy
Synergistic Implant Technology

Intra-Lock® International Inc., headquartered in Boca Raton, Florida, USA, is a leading provider of innovative dental restoration solutions including a wide range of dental implants, bio-materials and prosthetic abutments. Intra-Lock dental implants are biologically driven in design. Their architectures are “site-specific” which encourages physiologic harmony and ensures an ideal tissue response when compromised bone volume, density and/or extraction site defects are encountered. Intra-Lock’s advanced bioactive surface, OSSEAN®, its ergonomic delivery technology, Drive-Lock™ and its exceptional abutment stability offer a complete solution for dental implant specialists.

Intra-Lock’s origins can be dated back to the 1990’s when an international coalition of dental professionals, biologists, design engineers, and manufacturing craftsmen were assembled to further the evolution of existing dental implant technology. With a fresh slate, they began a design and development project that was global in extent and encompassed decades of research and analysis.

By analyzing “proven” designs and the latest and most valid biological principles, they realized that within this multidisciplinary data there existed the opportunity to provide the discipline with significant advancements in the design of implant systems. Armed with this new database of knowledge, a prototype implant and a novel delivery system was developed. It was named the “Intra-Lock System” and was marketed for almost a decade in Europe and the Americas. Tens of thousands of implants were placed and evaluated. Clinical success, patient acceptance and confidence in this system by the practitioners who used it led to the 2001 worldwide debut of Intra-Lock International, Inc.

Today Intra-Lock’s family of practitioners has grown to include a vast array of dentists, dental specialists and implant surgeons worldwide.

Since its founding, Intra-Lock continues to make significant investments in the research and development of dental implant systems based on four fundamental pillars:

- **Surface Treatment**
- **Micro and Macro Architectural Designs**
- **A full range of Restorative Components**
- **Biologics**

Intra-Lock’s innovative technology addresses the most important factors in determining successful outcomes including increased efficiency of the initial biologic interactions in an osteotomy, enhancing the immediate stability of the implant, enabling faster integration which reduces the time to final reconstruction while preserving bone and soft tissues over the long term.

While most implant companies manufacture an implant system that consists of a single macro-architecture across varying sizes, this “one-size-fits-all” mentality fails to address the challenges of implant sites where volume, density and extraction site defects compromise initial stability and healing. Intra-Lock differentiates itself by offering several different architectures and thread designs, each of which is engineered to be “site-specific”.

The company’s proprietary product manufacturing facility is located in Vista, California, and its surface finishing, biomaterial laboratories, packaging/shipping, and Global Headquarters are in southern Florida.

Its truly comprehensive array of implant systems range from 2mm to 6.5mm in diameter, tapered to straight body architectures and internal, external and one piece prosthetic connections.
The scientists and bioengineers at Intra-Lock, focusing on the mechanical and biological interactions of the implant as it is initially seated in bone, designed a new “Cutting-Edge” self-tapping configuration called BLOSSOM®. It enables the implant to continually cut through bone with increased surgical efficiency and negligible force resulting in minimal trauma.

Eliminating the need for conventional flutes and vents that traditionally define self-tapping implants, BLOSSOM features a fully integrated tapping configuration that is evenly spaced and distributed along the implant. As a result BLOSSOM implant placement lowers insertion torque while increasing initial stability. Additionally the BLOSSOM cutting architecture eliminates “crowding” and produces fewer, more evenly distributed bone particles. This “self-clearing” action promotes faster osseointegration while simultaneously generating a physiologic autologous micro-graft.

The OSSEAN bio-active surface is found on all of Intra-Lock’s implants. Its structure is engineered to increase host-to-implant biocompatibility and biomechanical response. It is characterized by having a surface topography that is similar at all levels of magnification, from the surface to the Nano-scale level. The repetitive nature of this surface is defined as “fractal”, as with a set of Russian dolls the structure, when viewed at different levels of magnification, has the same basic repetitive characteristics. The surface beyond the Nano-metric level displays an ideal surface for fibrin attachment. At the micrometric level, the pattern is appropriate for platelet deposition. Under lower magnification, the pattern shows receptor sites that encourage the growth of osteoblasts.

Well beyond the Nano-metric level, impregnated in the titanium oxide layer of OSSEAN are calcium phosphate molecules. These molecules are more than a thousand times smaller than Nano-particles themselves allowing them to be extremely fixed to the surface (one with the implant) while maintaining their bio-active properties.

The fractal surface structure of the OSSEAN bio-active surface promotes faster osseointegration while simultaneously generating a physiologic autologous micro-graft.
L-PRF™ is a 3-D autogenous combination of Platelet Rich Fibrin derived from the patients’ blood. A simplified chairside procedure, utilizing Intra-Lock’s FDA cleared Intra-Spin™ System results in the production of a thin, compressed layer of platelet rich fibrin that is strong, pliable and suitable for surgical manipulation and suturing. This natural fibrin network is rich in platelets, growth factors and cytokines that are derived from the blood platelets and leukocytes. The presence of these proteins has been reported to produce rapid healing, especially during the critical two week period after placement. This network promotes more efficient cell migration and proliferation without chemical or bovine thrombin additives.

L-PRF can be mixed with autograft and/or allograft bone prior to application to a bony defect thus improving handling characteristics. It is indicated but not limited to extraction sockets, sinus and dental ridge augmentation procedures, palatal defects, and maxillary bone atrophy.

THE ONLY FDA 510K CLEARED, CE MARKED MEDICAL DEVICE FOR CHAIRSIDE PRODUCTION OF L-PRF.

Using the IntraSpin L-PRF™ System’s specific equipment and protocols, ensures the production of L-PRF™ with a proven biologic signature. You can be assured that the IntraSpin™ System produces L-PRF™ truly rich in the platelets, growth factors, and cytokines necessary to produce rapid healing, and efficient regeneration.*

IntraSpin L-PRF™ is a remarkable material that contains no additives, can be sutured, and is an excellent carrier for bone graft material. This recognition has even led to a plethora of claims for “advanced” protocols…but in the end there is only ONE scientifically based, clinically proven, protocol cleared by national health agencies worldwide.

*intra-lock.com/scientific-literature.html
WHAT IS THE IDEAL DENTAL IMPLANT?

The **IDEAL** dental implant would resist the biologic and mechanical attacks it will face in its lifetime. Healthy, robust bone and soft tissue should surround the implant from day of placement, combating infection and preventing tissue degradation for years to come. The restorations must withstand the test of time without screw loosening, implant fracture or other mechanical failures.

Fortunately, recent advances in implant surface, connection technology and overall architecture have enabled the development of a dental implant that specifically addresses these criteria in ways only dreamed of in the past.

The **IDEAL** dental implants macro geometry does not create excessive stress during insertion maintaining physiologic compression of the surrounding bone. The surface is bio-active, not simply tolerating the bone interface, but actually recruiting stem cells that specifically differentiate into osteoblasts. The prosthetic connection is a solid, strong foundation for the restoration with a design that can tolerate long-term occlusal stresses.

FLEXIBILITY OF A FAMILIAR RESTORATIVE SYSTEM

Some practitioners are accustomed to restoring implants with abutments compatible with an internal hex configuration. For those practitioners, Intra-Lock’s **IntraHex**™ provides the flexibility of utilizing a familiar restorative system without sacrificing surgical integrity.

Now the technological advances found in Intra-Lock’s **InDex**™ Internal Connection Implant bodies are available on a wide selection of implants...with an internal–hex abutment connection.

**IntraHex**™ Implants feature the biologically active surface treatment, **OSSSEAN**® found on all Intra-Lock implants.

Biologically and clinically evidence-driven body designs address a wide range of clinical applications. **BLOSSOM’s**® (patent pending) efficient self-tapping technology features a fully integrated tapping configuration that is distributed along the body of the implant. It continually cuts through the bone with remarkable efficiency allowing for lower insertion torque with reduced micro-movement (greater stability).
SYNERGISTIC IMPLANT TECHNOLOGY

FLAT OCCLUSAL TABLE WITH FLATONE® CONNECTION

FlatTop™ Implants feature a one-piece design incorporating selected Intra-Lock® implant bodies with a FlatOne® prosthetic abutment interface. This eliminates the possibility of any abutment micro-motion and maximizes overall strength. The one-piece construction also simplifies placement and condenses restorative inventory requirements. It combines, in one unit, the time-tested design features of an advanced full arch restorative system with the micro architectural enhancements and bio-active performance of the OSSEAN® surface BLOSSOM® Implants.

FlatTop™ prosthetic connection has a flat occlusal table, the same as the FlatOne® Abutment, that mates precisely with FlatOne® Casting Cylinders. This allows passive placement of a suprastructure, even in challenging cases when implants are extremely divergent. Ideal for screw retained bridges or bars, it provides accurate passive seating of the final restoration.

A full compliment of laboratory components aides in the restoration of FlatTop™ One-Piece Implants. Many of these same components are also utilized in the FlatOne® Abutment System.

SMALL DIAMETER IMPLANTS WITH MULTIPLE TREATMENT OPTIONS “CONVERTIBLE VERSATILITY” . . .

MDL® Implant System is ideal for Long-term denture stabilization. Among MDLs outstanding characteristics are ease of placement, minimum surgical trauma to the patient and the ability to immediately load and provide function. They are available in 2mm and 2.5mm diameters with lengths ranging from 10mm to 18mm.

MILO® is Intra-Lock’s one-piece 3.0mm diameter Dental Implant System. It is endowed with qualities that render it ideal for both long-term denture stabilization or fixed prosthetic options. MILO implants are available in five lengths (10, 11.5, 13, 15, and 17mm) and two thread profiles (Fine Pitch and Wide Pitch) that are engineered to address the clinical quality and quantity of bone.

Both feature Drive-Lock placement technology, bio-active OSSEAN® surface and Patented Cement-Over™ Abutments. They are available in Straight, 15 degree, Wide, Castable, and Temporary designs and simply fit over the O-Ball assembly converting the implant from removable to fixed prosthetic options.
L-PRF® without an OSSEAN® Surface Implant is like driving this car ONLY in first gear!*