

Ortho Care Program

Oral Health Management
during and after orthodontic treatment



Synchronized
solutions
for a bright smile

Ivoclar Vivadent

Ortho Care Program

Strong and healthy teeth and healthy gums. This is the goal to which orthodontists and their teams aspire and it is the wish of orthodontic patients.

Oral Health Management in orthodontic patients

Orthodontic patients are faced with many challenges: Brackets and bands promote the growth of the bacterial biofilm. What is more, the complex structures are difficult to clean. As a result, white spot lesions may develop and the gums can become inflamed. Therefore, selective Oral Health Management solutions for in-office and at-home use are required for all the different orthodontic treatment phases. The ultimate goal is not only to have properly aligned teeth, but also good looking and healthy teeth.

Ortho Care Program

The Ortho Care Program from Ivoclar Vivadent offers coordinated product systems for the placement of brackets and for professional oral health care during and after the orthodontic treatment. The products are suitable for use in orthodontic patients due to their special ingredients, as well as their favourable properties related to flow, wetting and adhesion. Furthermore, the products are easy to apply and have mild flavours. Clinical experience and the results of international studies confirm the effectiveness of these products in this target group.



Ortho Care

- *Healthy gums*
- *Healthy teeth*
- *Healthy mouth*

Ivoclar Vivadent offers synchronized solutions for a bright smile.

Contents: 4 **Plaque Test and CRT®**
Focus on biofilm

6 **Proxyt®**
Gentle removal of bacterial biofilm

8 **Fluor Protector**
Superior protection against white spot lesions

10 **Cervitec®**
Individualized protection for at-risk areas

12 **Heliosit® Orthodontic and Bluephase® Style**
Fast placement of brackets

14 **OptraGate®**
For a full view

15 **VivaStyle® Paint On Plus**
Serious whitening



Plaque Test and CRT®

Focus on biofilm



Bacterial biofilm promotes the development of white spot lesions and gingivitis. Therefore, the desired outcome of the orthodontic treatment is compromised.

Problem areas: Brackets and bands

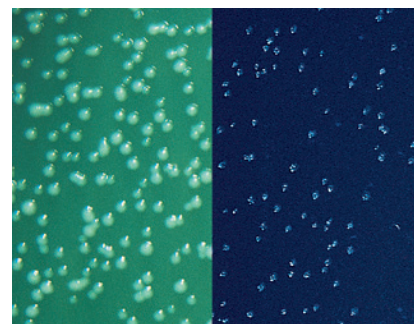
Plaque tends to accumulate in the areas around brackets and bands, which are difficult to clean. At the same time, excellent oral hygiene is indispensable to the success of the orthodontic treatment. As a result, patients need good advice.

Plaque Test – revealing the biofilm

Plaque Test is used to selectively colour bacterial biofilm and make it visible. The fluorescent pigment does not react with the teeth, gums and orthodontic appliances. Only the plaque-coated areas glow under the light of a polymerization unit, for example, Bluephase® Style from Ivoclar Vivadent.

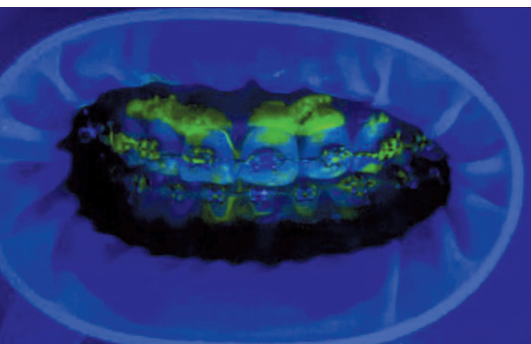
CRT® bacteria – tracking down microorganisms

Microorganisms play a key role in the onset and progression of white spot lesions. High counts of mutans streptococci and/or lactobacilli can put the teeth at risk. The proven biological test CRT bacteria enables the clear identification and semi-quantitative determination of cariogenic germs. CRT bacteria provides important information about conditions in the mouth, before any changes in the tooth substance are detected. As a result, the appropriate countermeasures can be introduced at an early stage.



*Lactobacilli and mutans streptococci on CRT® bacteria
Picture: Prof. Dr S. Kneist, Germany*

Biofilm made visible with the fluorescent Plaque Test



*Picture: Dr T. Repetto-Bauckhage,
Ivoclar Vivadent AG, Liechtenstein*

Plaque Test – the fluorescent disclosing liquid

Advantages	Benefits
Selective application	No unsightly staining of the tongue, gums and mucous membrane
Only the biofilm glows	Clear examination results
Fluoresces under any polymerization light	Easy to integrate into routine procedures

Picture: Prof. Dr S. Kneist, Germany



CRT bacteria | CRT buffer



CRT bacteria – the test for determining mutans streptococci and lactobacilli in saliva and in plaque

Advantages	Benefits
Simultaneous determination of mutans streptococci and lactobacilli	Risk-based treatment and supervision
High level of selectiveness	Reliable, meaningful results
Root cause analysis	Early detection and prevention of caries

CRT® buffer – focus on the protective function of saliva

The buffer systems contained in saliva are capable of neutralizing acids that can damage teeth. The buffering capacity of saliva is determined by means of the CRT buffer test. This test shows how well the buffering systems are doing their job.

CRT buffer – the test for determining the buffering capacity of saliva

Advantages	Benefits
Easy and fast procedure	Active collaboration of the patient
Results are available after only five minutes	Rapid availability of information
Root cause analysis	Early diagnosis and caries prevention

Special tip

- ▶ Bacterial biofilms can be selectively and gently removed with Proxyl® pastes, which are specially formulated for professional tooth cleaning. The OptraGate® lip and cheek retractor facilitates access to tooth surfaces and brackets.
- ▶ If CRT bacteria reveals a high number of mutans streptococci, it is advisable to apply the chlorhexidine-containing protective varnish Cervitec® Plus in the dental office. This treatment can be backed up by the at-home use of Cervitec® Gel, which contains chlorhexidine and fluoride.

Benefits for the dental team

- ▶ Comprehensive diagnostics
- ▶ Individualized recalls
- ▶ Risk-based treatment

Benefits for orthodontic patients

- ▶ Personalized attention
- ▶ Early detection
- ▶ Long-term preservation of teeth

The scientific basis

- ▶ Caries and periodontal disease are closely associated with bacterial plaque (Marsh & Martin 2003).

Gentle removal of bacterial biofilm

In order to prevent white spot lesions and gingivitis, the teeth and appliances are systematically cleaned in the dental practice on a regular basis during orthodontic treatment. Apart from the health benefits, professional tooth cleaning promotes "white" and "pink" esthetics. The teeth and gums look good. Even after the brackets and bands are removed.

Focus on individual needs

Proxyt prophylaxis pastes allow needs-oriented treatment. Proxyt pastes clean effectively and gently. Unnecessary wear of tooth structure or roughening of restoration surfaces is avoided with Proxyt. The pastes are available in three different abrasion levels:



With fluoride **Proxyt® fine** (RDA 7)



Proxyt® medium (RDA 36)



Proxyt® coarse (RDA 83)



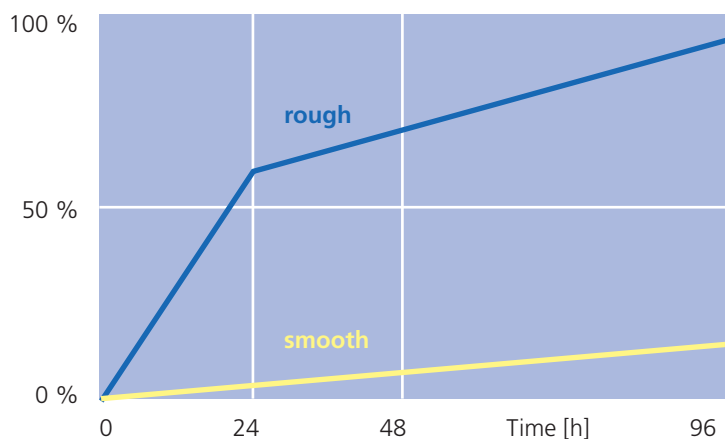
Fluoride-free **Proxyt® medium** (RDA 36)



RDA = Relative Dentin Abrasion

Tooth surfaces covered with plaque [%]

Smooth tooth surfaces hardly show any plaque growth (Quirynen et al. 1988).





First: Removal of tough bacterial film with the strong blue Proxylt® cleaning paste



Second: Effective cleaning with the fine Proxylt® paste. In the subsequent regular recall appointments, the fine paste is usually adequate.



After cleaning: Application of the fluoride-containing varnish Fluor Protector S
Pictures: Dr L. Enggist, Ivoclar Vivadent AG, Liechtenstein

Smooth surfaces prevent the formation of bacterial biofilms

Apart from hard and healthy dental enamel, significantly less resistant dentin, filling materials and the transition to the bonding material may have to be cleaned. The use of harsh agents must be avoided, as they roughen the surfaces. And, rough surfaces promote the growth of bacterial biofilm.

Gentle cleaning

Since orthodontic patients need to have their teeth cleaned professionally on a regular basis, this procedure should be as effective and gentle as possible. The fine pumice-free Proxylt paste is suitable for this purpose. It is applied with a soft rubber cup or brush. The polishing paste produces a natural-looking gloss and smooth surfaces.

Special tip

- ▶ Bacterial biofilms can be made visible with the fluorescent Plaque Test.

Benefits for the dental team

- ▶ Long-term gentle cleaning
- ▶ Well-being of patients
- ▶ Effective prevention of white spot lesions and gingivitis

Benefits for orthodontic patients

- ▶ Well-being
- ▶ Perceptibly smooth surfaces
- ▶ Long-term beautiful teeth

Proxylt – the prophylaxis pastes

Advantages

Defined abrasion values

Xylitol

Smooth consistency

Features

Needs-oriented, gentle and effective cleaning and polishing

Interruption of the bacterial metabolism

Good distribution on the teeth and around brackets

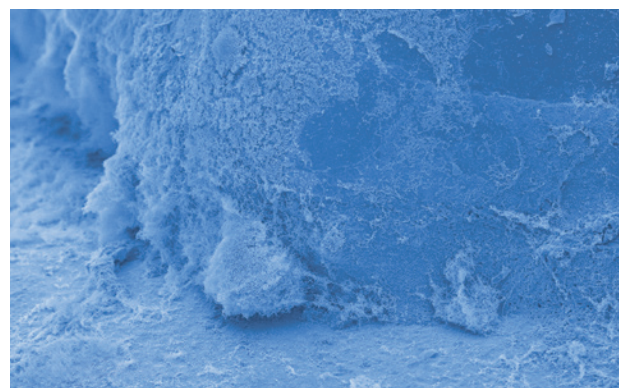
The scientific basis

- ▶ Professional tooth cleaning is recommended as a supplement to at-home cleaning measures during orthodontic treatment (Lux & Zingler 2013).

Brackets can provide ideal retention sites for bacterial plaque, SEM images



Prof. Dr S. Kneist, Germany



Fluor Protector

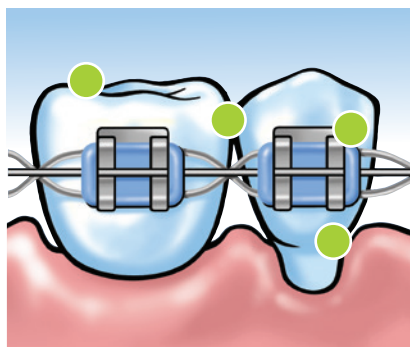
Superior protection against white spot lesions

The fluoride provided by toothpaste is often not enough for orthodontic patients. In these cases, additional fluoride treatment is necessary. The professional application of a fluoride varnish, for example, Fluor Protector or Fluor Protector S, is recommended for this purpose.

Comprehensive protection

Fluoride varnishes allow the teeth to be professionally protected against the following conditions:

- ▶ hypersensitivity
- ▶ caries
- ▶ erosion



Protection of problem areas

The low viscosity of Fluor Protector and Fluor Protector S ensures good flow and wetting properties. The varnishes spread easily and readily flow into complex surface structures. Problem areas such as

- ▶ surfaces around brackets and bands
- ▶ exposed cervicals
- ▶ fissures
- ▶ proximal surfaces
- ▶ filling and crown margins
- ▶ porous tooth surfaces

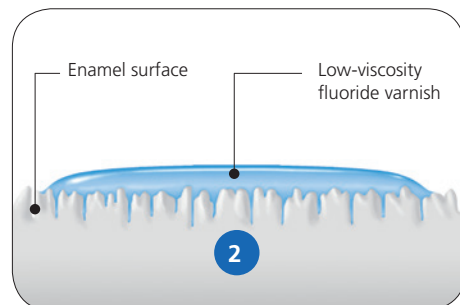
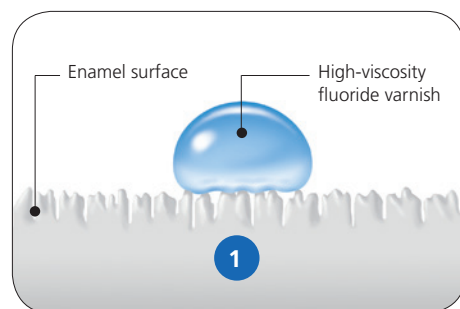
receive the required amount of fluoride and the protection it offers. Numerous international clinical studies and decades of practical experience confirm the effectiveness and the successful results of fluoride varnishes in orthodontic patients.

For individual needs

Fluor Protector and Fluor Protector S differ in their composition, fluoride concentration and delivery form. The varnishes are designed to fulfil different treatment needs.

The effective combination

Patients who wear brackets have to be treated with special dental care products for in-office and at-home use. Fluor Protector Gel, for example, contains fluoride in addition to calcium, phosphate and xylitol. The intensive care gel supplements the effect of the professionally applied protective varnishes. It strengthens the teeth and protects them against acid attacks.



1 Highly viscous fluoride varnishes sit on the tooth surface.

2 The low-viscosity fluoride varnish Fluor Protector S spreads easily and readily penetrates into porous surfaces.



Fluor Protector – the fluoride varnish with decades of experience

Advantages	Benefits
1,000 ppm fluoride in a homogeneous solution; after the varnish has dried, the concentration is approx. ten times higher	For different age groups
Decades of experience	Long-term clinical success
Clear, colourless	Optimum esthetics

Fluor Protector S – the fluoride varnish in a dispensing tube

Advantages	Benefits
7,700 ppm fluoride in a homogeneous solution; after the varnish has dried, the concentration is approx. four times higher	Ready for immediate use
Mild taste and smell	Recommended for sensitive patients
Dispensing tube or Single Dose units	Efficient or individualized

Fluor Protector Gel – the intensive care gel

Advantages	Benefits
Calcium plus 1,450 ppm fluoride plus phosphate	Comprehensive protection for teeth
Xylitol	Interruption of the bacterial metabolism
Provitamin D-Panthenol	Conditioning of gingival tissue

Special tip

- ▶ The chlorhexidine-containing Cervitec® Plus varnish reduces the high concentration of mutans streptococci in susceptible orthodontic patients. This enhances the effectiveness of fluoride.

Benefits for the dental team

- ▶ Highly effective fluoride varnishes and intensive care gel
- ▶ Solutions for individual needs
- ▶ Fast treatment

Benefits for orthodontic patients

- ▶ Fast, comfortable treatment
- ▶ Clinically proven method
- ▶ Long-term beautiful teeth

The scientific basis

- ▶ The routine application of a fluoride varnish during the treatment with fixed orthodontic appliances can reduce the development of white spot lesions in the vicinity of brackets (Stecksén-Blicks et al. 2007).



Cervitec®

Individualized protection for at-risk areas

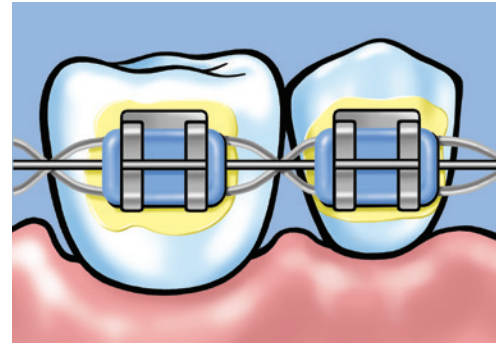
Standard oral hygiene measures and professional tooth cleaning and fluoridation are not adequate to protect the teeth from harm in orthodontic patients with high bacteria counts. In these cases, it is necessary to selectively reduce the number of cariogenic germs.

Cervitec® gives microorganisms a hard time

A high number of certain germs in the mouth compromises the health of the teeth, gums and mucous membrane and therefore the envisaged outcome of the orthodontic treatment.

The active ingredient chlorhexidine can minimize this risk. The chlorhexidine-containing Cervitec products offer individualized in-office and at-home solutions, in terms of the active-ingredient concentration, the delivery form and the application method:

- ▶ Cervitec Plus, the protective varnish
- ▶ Cervitec Gel, the oral care gel
- ▶ Cervitec Liquid, the mouth rinse



Cervitec® Plus for problem areas



Cervitec® Gel, the oral care gel





Targeted application of Cervitec® Plus around fixed orthodontic appliances



Pictures: Dr A. Peschke, Dr T. Repetto-Bauchhage, Ivoclar Vivadent AG, Liechtenstein

Cervitec Plus – spot-on effectiveness

Advantages	Benefits
1% chlorhexidine plus 1% thymol in a homogenous solution; after the varnish has dried, the concentration is approx. ten times higher	Effective bacterial control
Professional varnish application	Selective protection of susceptible areas
Optimum flow and wetting behaviour	Treatment of difficult-to-reach areas around brackets and bands

Cervitec Gel – efficient distribution

Advantages	Benefits
0.2% chlorhexidine plus 900 ppm fluoride	Combined strength for conditioning the gingiva, mucous membrane and teeth
Smooth consistency	Optimum distribution on complex surfaces
Mild taste	High level of patient compliance

Cervitec Liquid – powerful without alcohol

Advantages	Benefits
0.1% chlorhexidine plus xylitol plus essential oil	Reduction of bacterial growth
Alcohol-free	Suitable for sensitive patients
Pleasant taste	High level of patient compliance

Special tip

- ▶ Orthodontic patients can enhance the effect of the professional treatment with Cervitec Plus by using Cervitec Gel at home.

Benefits for the dental team

- ▶ Customized germ-fighting solutions for germ control
- ▶ Clinically proven preparations
- ▶ Easy to integrate into the treatment regime

Benefits for orthodontic patients

- ▶ Pleasant taste of all Cervitec products
- ▶ Products recommended by dental professionals
- ▶ Painless treatment

The scientific basis

- ▶ A treatment protocol is recommended, which will help to remineralize the dental enamel during orthodontic treatment and control the dynamics of cariogenic bacteria at the same time (Kneist et al. 2008).

Cervitec® Gel is easy to distribute.



Heliosit® Orthodontic and...

Fast placement of brackets

*Brackets should adhere well to the teeth.
Furthermore, they should be easy to remove after the treatment.
Heliosit® Orthodontic is available for bonding purposes together with the Bluephase® Style polymerization light.*

Heliosit Orthodontic for a strong bond

The single-component, composite-based Heliosit Orthodontic allows a fast and easy bonding of brackets made of metal or ceramic. The stable consistency facilitates the application and positioning of the brackets. The Bluephase Style polymerization light quickly cures the bonding material.

Heliosit Orthodontic – the bonding material for brackets

Advantages	Benefits
High bond strength	Good adhesion
Highly transparent	Esthetic bonding
Many years of clinical experience	Reliability

Bonding of brackets with Heliosit Orthodontic

Pictures: Dr T. Repetto-Bauchhage, Ivoclar Vivadent AG, Liechtenstein



Etching with Total Etch



Application of Heliosit® Orthodontic



Positioning of the brackets



Bluephase® Style



Bluephase Style for every use

Due to the specially developed Polywave® LED with a broadband spectrum of 385 to 515 nm Bluephase Style is capable of polymerizing all current photoinitiators and dental materials. The shortened light probe can be rotated by 360 degrees enabling easy access to all tooth surfaces with brackets.

The parallel light guide generates a homogeneous light scattering resulting in a consistent polymerization. Bluephase Style can be held like a pen or like a pistol. Given the light's low weight and balanced weight distribution, the strain exerted on the hand and arm is reduced, regardless of the size of the hand.

Special tip

- ▶ The enamel areas adjacent to the brackets can be protected with the fluoride-containing varnish Fluor Protector S.

Benefits for the dental team

- ▶ Fast bonding
- ▶ High degree of reliability and safety
- ▶ Coordinated system

Benefits for orthodontic patients

- ▶ Good adhesion of brackets
- ▶ Proven method
- ▶ Enhanced esthetics

The scientific basis

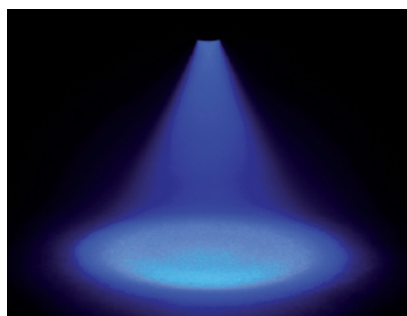
- ▶ Study results have shown that LED devices with a high light intensity are suitable for bonding brackets, even at an exposure time of 10 seconds (Palomares et al. 2008).

Bluephase Style – the polymerization unit

Advantages	Benefits
Polywave® LED	Can be used with every bonding material
High-performance LED (1,100 mW/cm ²)	Short curing time
Rotatable light probe	Easy polymerization for bonding brackets



Light-curing with Bluephase® Style



Homogeneous light scattering of Bluephase® Style



OptraGate®

For a full view



A full view of the working area saves treatment time and heightens the safety of orthodontic procedures. The latex-free lip and cheek retractor OptraGate® retracts the lips and teeth around the entire circumference of the mouth.

Invaluable auxiliary

OptraGate® provides unhindered access to the oral cavity and enables dental professionals to work efficiently, knowing that their patients are comfortable during the following procedures:

- ▶ dental examination
- ▶ bonding and removal of brackets and bands
- ▶ application of Plaque Test
- ▶ professional cleaning and polishing of the teeth
- ▶ application of protective varnishes
- ▶ tooth whitening

This saves everyone involved precious time.

Special tip

- ▶ OptraGate facilitates the positioning of brackets.

Benefits for the dental team

- ▶ Improved access to the treatment field
- ▶ Efficient treatment
- ▶ Wide range of applications

Benefits for orthodontic patients

- ▶ Latex-free
- ▶ Comfortable retraction of the lips and cheeks
- ▶ Fast treatment

Practical evidence

- ▶ OptraGate is helpful in many different situations: orthodontics, restorative treatment, photography, laser procedures, professional tooth cleaning, dental imaging and impression taking (Brinker 2014).



The oral cavity and the teeth are easy to reach. As a result, the bonding and removal of brackets and bands proceeds more efficiently.

OptraGate – the comfortable lip and cheek retractor

Advantages	Benefits
Three-dimensional flexibility	Relaxed opening of the mouth
Recesses for the lip frenulum	High level of comfort for patients
Available in different sizes	Individualized fit

VivaStyle® Paint On Plus

Serious whitening

Many adult patients like to have their teeth whitened after undergoing orthodontic treatment. VivaStyle® Paint On Plus is available for lightening stained natural teeth.

Professional decisions

Various treatment options involving the innovative tooth whitener in varnish form are available in accordance with the diagnosis and the individual patient needs:

- in the dental office or at home

VivaStyle Paint On Plus

Intensive treatments can be undertaken in the dental practice to produce fast whitening results. For this purpose, VivaStyle Paint On Plus is applied several times in succession during one appointment (Mata & Marques 2006).



VivaStyle Paint On Plus

Orthodontic treatment



After orthodontic treatment



After tooth whitening



Pictures: Dr A. Peschke, Ivoclar Vivadent AG, Liechtenstein

VivaStyle Paint On Plus – effective lightening without a tray

Advantages

Varnish system containing 6% hydrogen peroxide
Fast release of active ingredients
Provitamin D-Panthenol

Benefits

Controlled application and action on the right spot
Only ten minutes per application
Conditioning of the gingiva

Special tip

- During and after tooth whitening, it is advisable to use Fluor Protector Gel, which contains calcium, fluoride and phosphate.

The scientific basis

- VivaStyle Paint On Plus has been proven to effectively lighten teeth (Mata & Marques 2006).

Ortho Care Program

For a bright and healthy smile

For orthodontic treatment, Ivoclar Vivadent offers the Ortho Care Program. It will allow you to fulfil your own personal standards as well as the individual requirements of your patients in terms of function and esthetics.

During orthodontic treatment, the teeth and mouth require professional Oral Health Management solutions. Ivoclar Vivadent is there to assist you. The Ortho Care products for prevention, treatment, bonding and care enable you to enhance the services of your practice in anticipation of the future.

Our service to you We are happy to assist you.

We will provide you with the following information for your office and your patients:

- ▶ brochures
- ▶ flow charts
- ▶ treatment plans
- ▶ study results
- ▶ documentations
- ▶ articles
- ▶ videos
- ▶ presentations

