

**BIOTECH**  **REHABILITATION**  
**OF INJURED PEOPLE**  
supported by  **ilaya** regeneration



Projects results

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BIOTECH  REHABILITATION  
OF INJURED PEOPLE  
supported by  ilaya regeneration

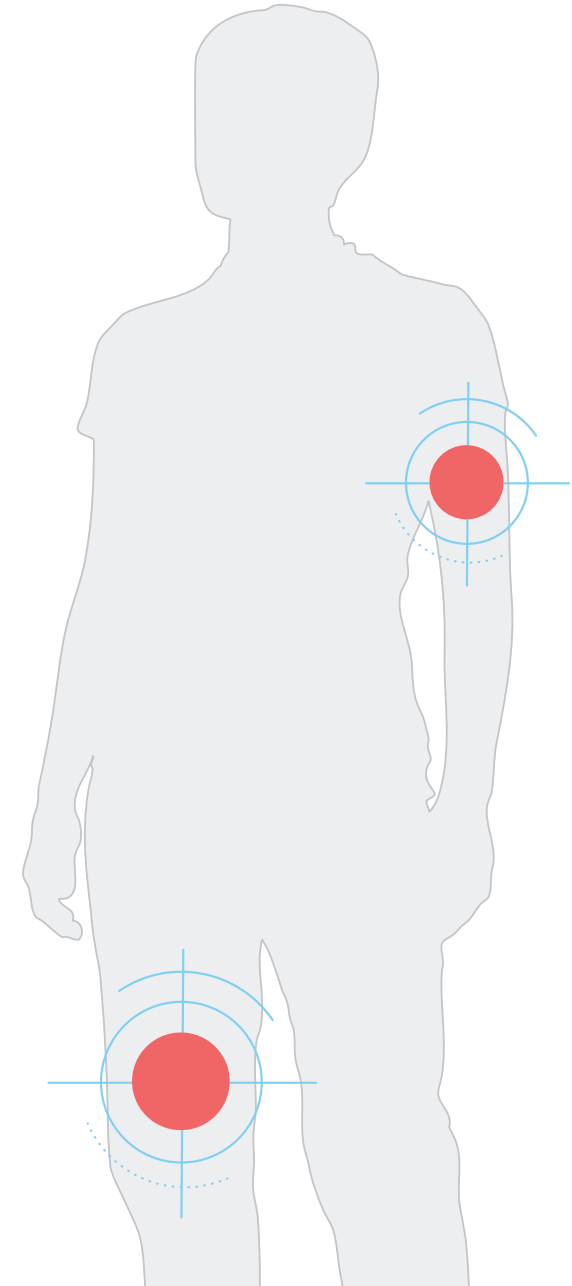
# Practical Charity

I was frustrated because of the lack of boots  
until I met a man without legs

Dale Carnegie



- During 2014–2016 there were approximately 23 thousand of people wounded in the east of Ukraine (Information provided by the United Nations)
- Almost 50% of all combat injuries while fighting nowadays are twisting limbs due to explosive and bullet wounds (data from open sources)
- 5–7% of combat injuries are accompanied by the appearance of bone defects (according to the experience of orthopedists–traumatologists)
- Nowadays traditional medicine in Ukraine in case of defects of bone cells from 5 cm applies prosthesis or amputation due to dysfunctional reception of limbs, which significantly reduces the quality of life and require constant financial expenses from a patient



## Project «Biotech Rehabilitation of wounded people»

combines the efforts of scientists, doctors, donors and patrons  
for the purpose of rapid and effective assistance to victims in ATO area

Project founders:



We treat the effects of combat trauma bones  
(shoulder, forearm thigh, shin. Foot):

- woven bone defect
- ununited fracture
- false joint

average time cycle of treatment  
is 3–5 months



- 1 Sampling of patient cell material
- 2 Material preparation at bio laboratory
- 3 Operation by means of cellular and tissue material





24th Separate  
Mechanized Brigade



Battalion "AZOV"



17th Separate  
Mechanized Brigade



Battalion "CHERNIHIV"



93rd Separate  
Mechanized Brigade



95th Separate  
Airmobile Brigade



Nat Guard



81st Separate  
Airmobile Brigade



3rd Regiment  
of Special Purpose



8th Regiment  
of Special Purpose



28th Separate  
Mechanized Brigade



Battalion "AIDAR"



Luhansk Border Detachment



72nd Separate  
Mechanized Brigade



Battalion "DNIPRO-1"



79 Separate  
Airmobile Brigade



Battalion "DONBAS"



30th Separate  
Mechanized Brigade



11th Battalion "KYIVSKA RUS"



Volunteer Ukrainian Corps  
"PRAVYI SEKTOR"



Consolidated Demining Squad  
of the Armed Forces of Ukraine



51st Separate  
Mechanized Brigade



39th Separate Mechanized  
Infantry Battalion



57th Separate  
Mechanized Infantry  
Brigade



Battalion "Organization  
of Ukrainian Nationalists"



703rd Saperno  
Engineering Regiment



128th Separate  
Mechanized Brigade



Battalion "TORNADO"



25th Separate  
Dnipropetrovsk Airborne  
Brigade



Battalion "HORYN"



80th Separate  
Airmobile Brigade



For 2,5 years of the project "Biotech rehabilitation of injured people"

Included into project: 70 patients

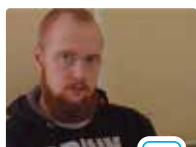
The results obtained: 62 patients

Completed treatment: 40 patients

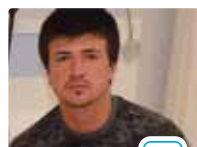
 there is result



Natalia



Oleg



Andriy



Sergiy



Svyatoslav



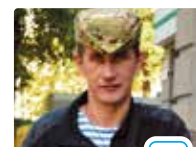
Evgen



Juriy



Viktor



Oleksandr



Andriy



Mykhailo



Viktor



Juriy



Vitaliy



Andriy



Oleg



Oleksandra



Viktor



Sergiy



Bogdan



Ivan



Oleg



Oleksandr



Sergiy



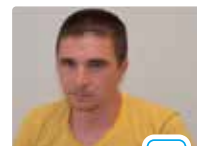
Vitaliy



Valeriy



Volodymyr



Oleksandr



Oleksiy



Andriy



Roman



Volodymyr



Vasyl



Evgen



Ivan



Roman



Oleksandr



Vladyslav



Dmytro



Volodymyr



Igor



Pavlo



Oleksandr



Oleksandr



Oleksandr



Volodymyr



Oleksiy



Juriy



Vitaliy



Andriy





Oleg



Volodymyr



Volodymyr



Bogdan



Oleksandr



Oleksandr



Oleksandr



Pavlo



Dmytro



Sergiy



Roman



Sergiy



Sergiy



Evgen



Vitaliy



Igor



Nikita



Sergiy



Dmytro



Petro





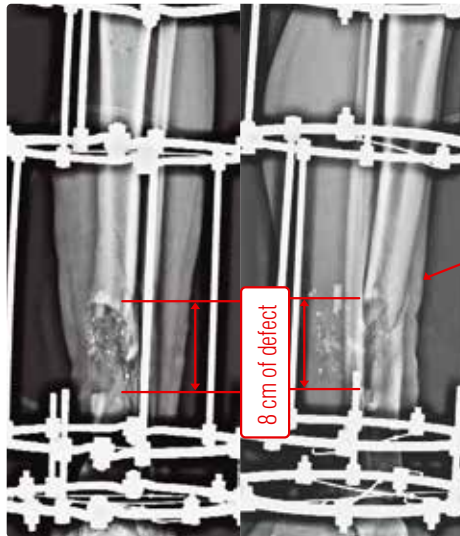
Andriy  
23 years old  
Sumskiy region



Fracture of the left  
tibia with 8 cm  
defect

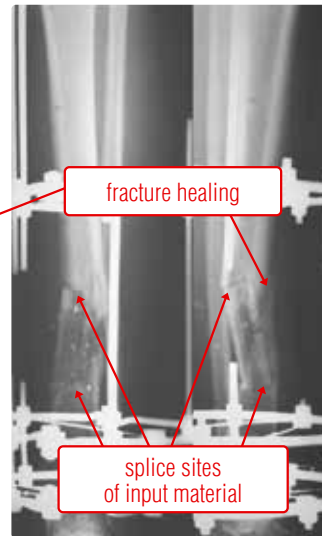
Before accepting to the project: 2 month in 3 hospitals  
Alternative: disability due to the loss of feet management, treatment from 1.5 g.  
by means of traditional methods  
Cost of treatment: 286 527 UAH (\$22 040)

december 2014



after osteo necrotomy (1st operation)

february 2015



1,5 months after main surgery

may 2015



5 months after main surgery





Mykhaylo  
21 years old  
Luhansk



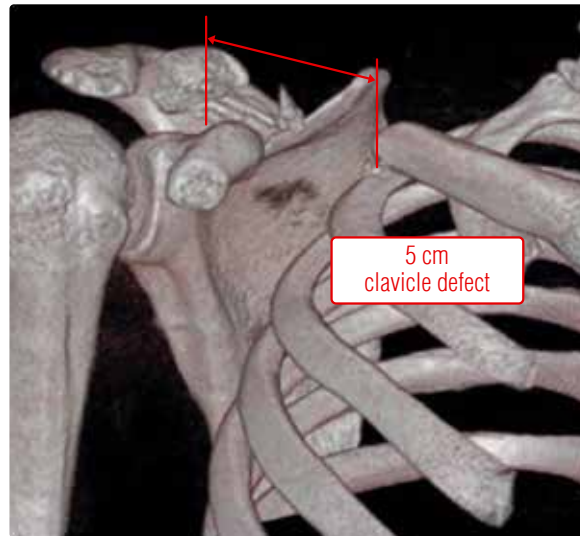
5 cm defect of the right clavicle

Before accepting to the project: 2 month in 3 hospitals

Alternative: loss of most functions of the hand (inability to lift things)  
disability due to disability of hand, treatment of 1 year by traditional  
methods

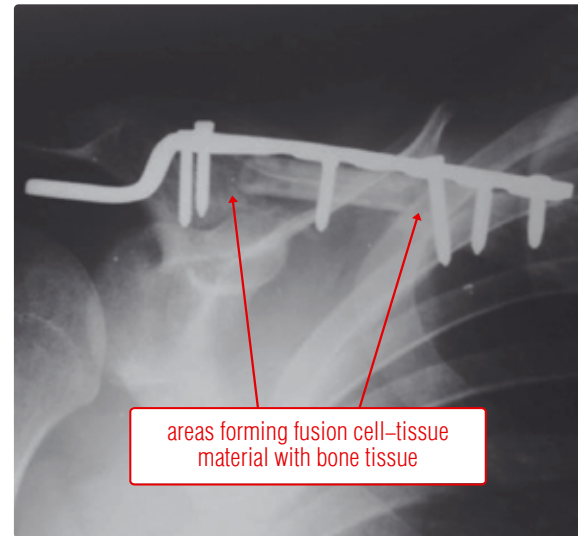
Cost of treatment: 201 698 UAH (\$14 377)

november 2014



before treatment

january 2015



1,5 months after main surgery





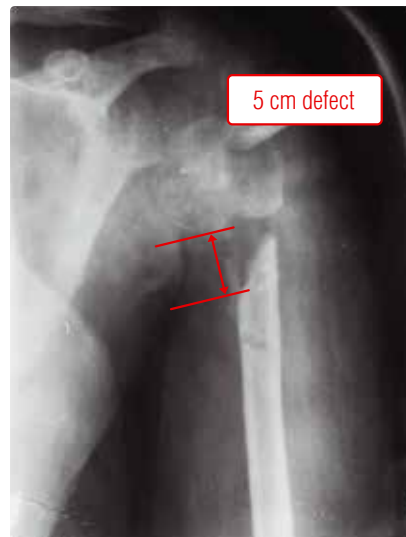
Natalia  
46 years old  
Kramatorsk



injured left shoulder  
with bone defect to 5 cm,  
blood circulation and  
innervations of left upper limb

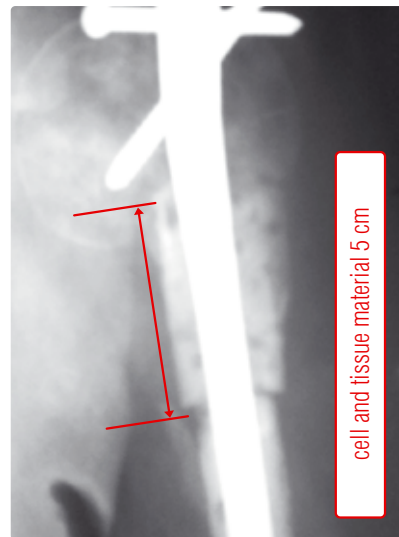
Before accepting to the project: 2 month in hospital  
Alternative: disability of hand, treatment of 1,5–2 years by traditional  
methods (high risk of dissolution head bone), the shortening of the bone –  
risk of circularity problems leading to loss of limbs  
Cost of treatment: 103 020 UAH (\$7 955)

november 2014



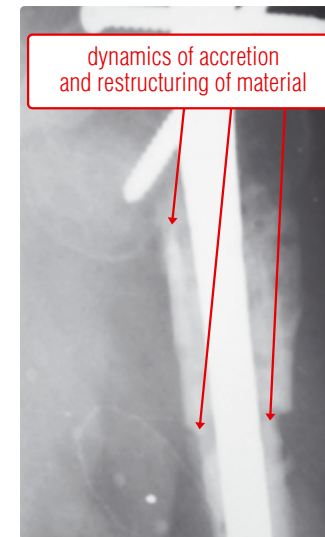
before treatment

december 2014



1,5 months after main surgery

february 2015



3 months after main surgery







Oleg  
24 years old  
Cherkassy



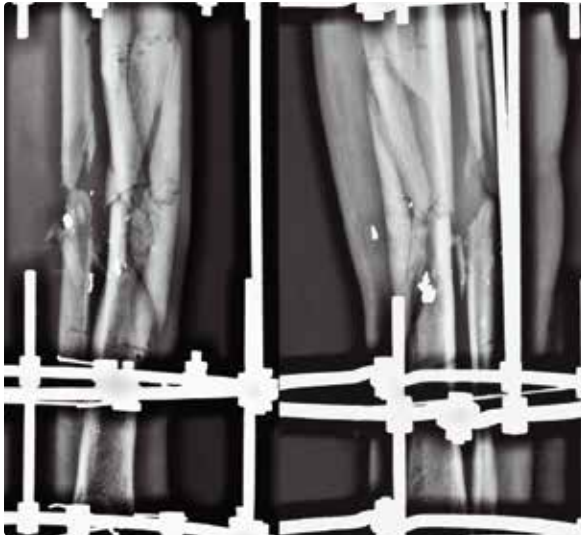
Ununited tibial  
fracture

Before accepting to the project: 2 month in 3 hospitals

Alternative: the absence of fusion for 3 months can lead to malfunction of leg,  
1,5–2 years treatment with traditional methods

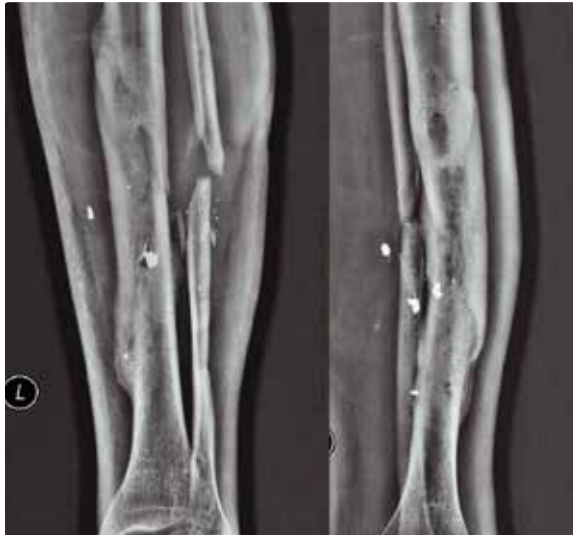
Cost of treatment: 94 004 UAH (\$7 259)

october 2014



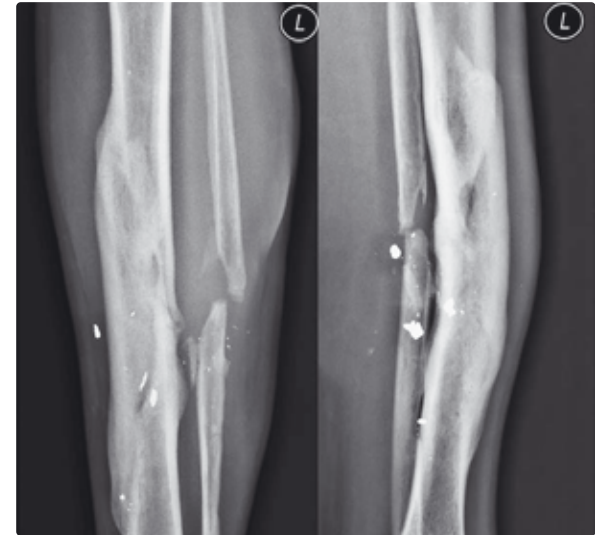
before treatment

april 2015



4 months after main surgery

february 2016



1 year after main surgery





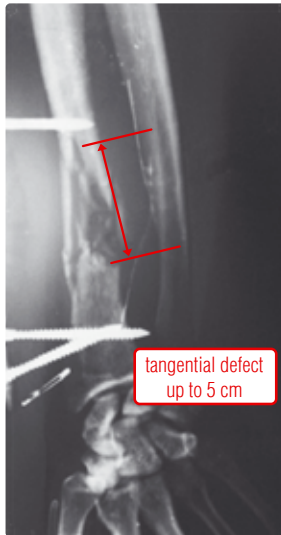
Sergiy  
26 years old  
Dnipropetrovskiy region



Ununited fracture  
of the right humerus  
fracture radiation bone  
defect 5 cm

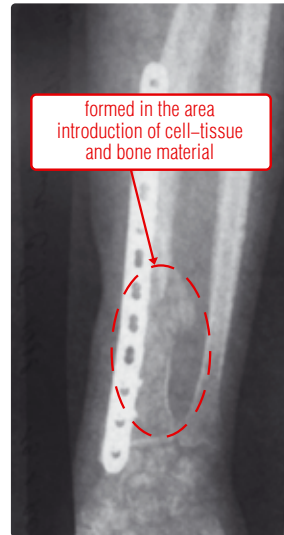
Before accepting to the project: 2 month in 3 hospitals  
Alternative: disability of hand, traditional methods of bone  
restoring last for 9 months  
Cost of treatment: 147 024 UAH (\$11 348)

september 2014



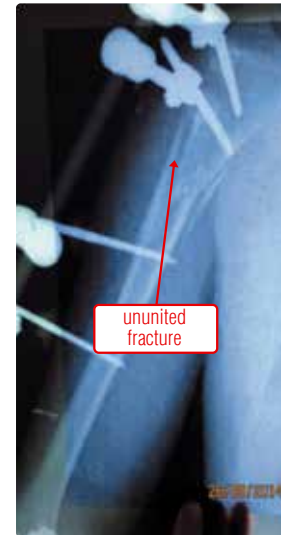
before treatment

january 2015



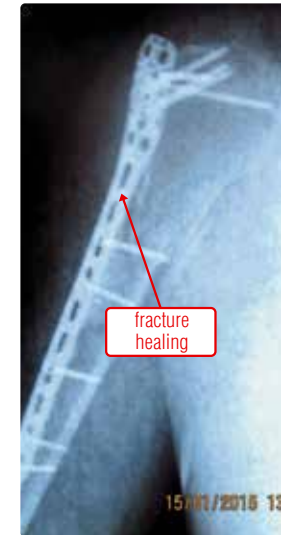
1,5 months after main surgery

september 2014



before treatment

january 2015



2,5 months after main surgery







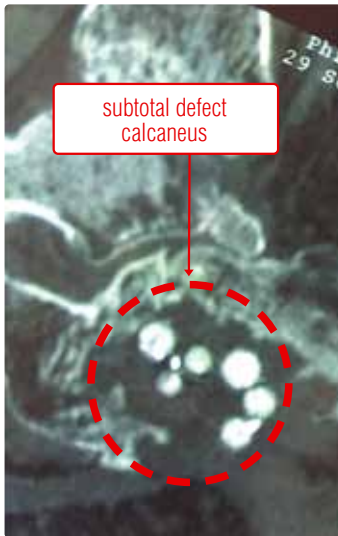
Viktor  
36 years old  
Rivne region



Multifragmental fracture of the calcaneus, Rear appendix talus offset fragments

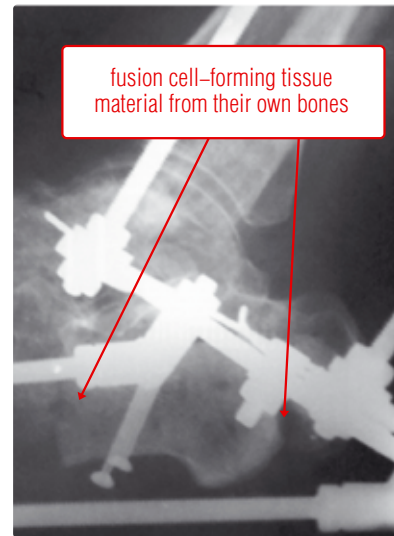
Before accepting to the project: 4 month in 3 hospitals  
Alternative: disability of feet, trophic ulcers may occur with high probability of amputation, the possibility of spinal deformity due to lack of stress on the heel  
Cost of treatment: 219 286 UAH (\$16 933)

september 2014



before treatment

january 2015



1,5 months after main surgery

june 2015



7 months after main surgery

october 2016

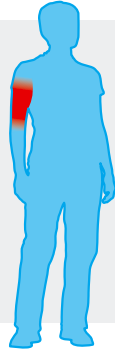


2 year after main surgery





Jurij  
28 years old  
Kirovograd



Gunshot wound  
in shoulder area,  
defect of humerus  
in 12 cm

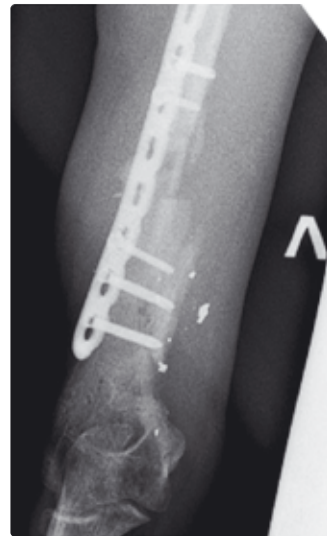
Before accepting to the project: 4 month in 2 hospitals  
Alternative: disability through the loss of arm functioning; high probability  
of amputation; inability to perform full locomotor rehabilitation after spinal trauma  
Cost of treatment: 151 921 UAH (\$11 704)

october 2014



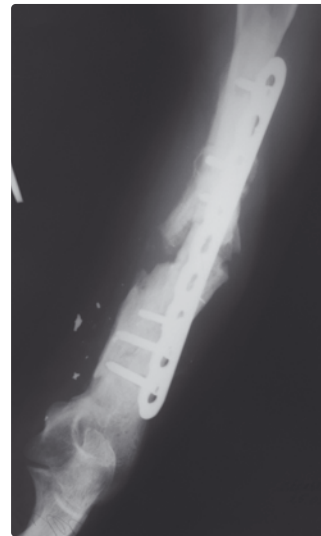
before treatment

march 2015



1,5 months after main surgery

may 2015



3 months after main surgery

march 2017



2 years after main surgery





Roman  
37 years old  
Kryvyi Rih



Lower leg missile  
wound, loss of shin  
bone's joint  
formation part

Before accepting to the project: 1 month in hospital  
Alternative: disability due to knee loss and lack of leg's supporting  
capability  
Cost of treatment: 248 865 UAH (\$19 217)

november 2014



before treatment

may 2015



1,5 months after main surgery







Oleg  
23 years old  
Ivano-Frankivsk



Shoulder missile wound,  
bone defect of 12 cm.  
Hip missile wound,  
ununited fracture,  
bone defect of 3 cm.  
Varus deformity of the foot

Before accepting to the project: 8 month in 2 hospitals  
Alternative: disability due to the lack of leg's supporting capability and arms' function, brachiotomy  
Cost of treatment: 494 619 UAH (\$27 572)

february 2015



before treatment

june 2015



1,5 months after main surgery

april 2016



1 year after main surgery

april 2015

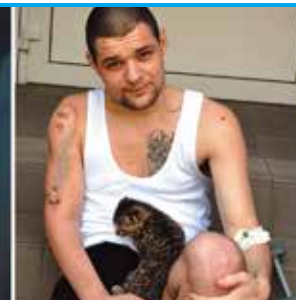


before treatment

march 2016



2 months after main surgery





Vasyi  
38 years old  
Lviv region



Shin bone defect of 100–120 cm<sup>3</sup>  
with malunion, knee joint impairment

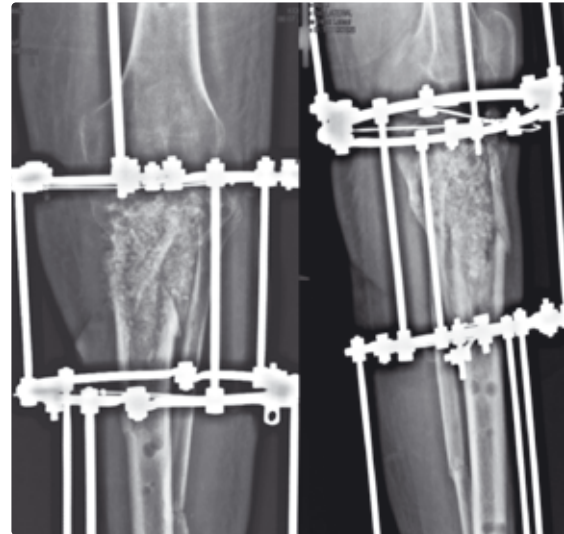
Before accepting to the project: 6 month in 3 hospitals  
Alternative: disability, amputation due to the lack  
of leg's function  
Cost of treatment: 321 987 UAH (\$19 063)

february 2015



before treatment

july 2015



3 months after main surgery

october 2015



6 months after main surgery







Sergiy  
38 years old  
Kharkiv



Gunshot injury of the left  
shin bone with a defect  
of up to 14 cm

Before accepting to the project: 4 month in 3 hospitals  
Alternative: amputation, disability due to the leg shortening  
Cost of treatment: 186 199 UAH (\$10 302)

december 2014



before treatment

desember 2015



6 months after main surgery

august 2016



1 year after main surgery





Olexandr  
25 years old  
Dnipropetrovsk region



Severe shell fragment injury  
of the foot, heel bone defect

Before accepting to the project: 7 month in 3 hospitals  
Alternative: disability, amputation through lack of functions  
of the leg  
Cost of treatment: 435 364 UAH (\$33 489)

january 2015



before treatment

june 2015



before the defect replacement

october 2015



4 months after the main operation





Volodymyr  
19 years old  
Ivano-Frankivsk



After-effects of the explosive fragment injury of the left foot with a defect of metatarsus 4 to 5, metatarsus bone fractures 3-4 and soft tissue defects

Before accepting to the project: 7 month in 3 hospitals  
Alternative: disability  
Cost of treatment: 141 966 UAH (\$9 212)

july 2015



before the defect replacement

november 2015



3.5 months after the main operation







Ivan  
32 years old  
Lviv region



After-effects of the fragmentation  
shin injury, cicatricial ulcerative  
defect of soft tissues, fracture nonunion  
for 9 months

Before accepting to the project: 9 month in 3 hospitals  
Alternative: disability due to lack of the leg support ability  
Cost of treatment: 316 244 UAH (\$13 660)

july 2015



before treatment

october 2015



3 months after the main operation

january 2016



1,5 year after the main operation





Vitaliy  
37 years old  
Kherson region



Defect of both tibial bones 8 cm and 12 cm, defect of soft tissues of both legs

Before accepting to the project: 5 month in 3 hospitals  
Alternative: disability due to amputation of one leg and shortening of another one  
Cost of treatment: 428 484 UAH (\$20 307)



before treatment



2 months after the main operation



before treatment



2 months after the main operation







Sviatoslav  
46 years old  
Zaporizhzhia



Defect of proximal third of the humerus  
in the extent of 8 cm, the head  
of the humerus is completely missing

Before accepting to the project: 1 year in 3 hospitals  
Alternative: amputation or endoprosthesis  
Cost of treatment: 585 079 UAH (\$31 590)



Before treatment



In a month and a half after the main surgery



6 month after the main surgery





Roman  
44 years old  
Dnipropetrovsk region



Multifragmental fracture of the shoulder,  
injury of radial nerve

Before accepting to the project: 8 month in 3 hospitals  
Alternative: disability due to loss of arm function,  
amputation because of complication  
Cost of treatment: 314 846 UAH (\$14 393)

june 2015

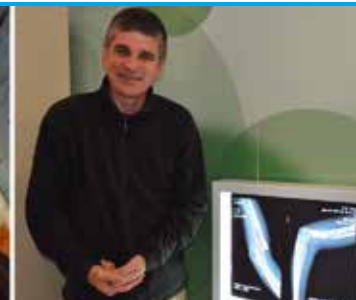


before treatment

november 2015



1,5 months after the main operation





Oleg  
47 years old  
Cherkassy region



A gun wound of the thigh,  
defect of a thigh bone up to 14 cm

Before accepting to the project: 10 month in 4 hospitals  
Alternative: amputation of the leg due to low functioning  
Cost of treatment: 346 107 UAH (\$16 450)



before treatment



3 months after the main operation







Viktor  
34 years old  
Kyiv region



Osteomyelitis of the shin-bone  
with the wide purulent-necrotic wound

Before accepting to the project: 1 year in 3 hospitals  
Alternative: amputation due to dangerous complications  
Cost of treatment: 181 565 UAH (\$8 516)

september 2015



before treatment

february 2016



2 months after the main operation



8 months after the main operation





Volodymyr  
47 years old  
Kyiv



Total defect of the calcaneus

Before accepting to the project: 1 year in 3 hospitals  
Alternative: prosthetics, disability due to inability of leg support  
Cost of treatment: 505 130 UAH (\$20 124)



Before treatment



1,5 month after the primary operation





Waiting to be accepted to the project:



**Vitaliy, 23 years, soldier of the 128th Separate Mechanized Brigade**

**Diagnosis:** fracture nonunion after osteosynthesis with a plate of the right tibia, posttraumatic osteomyelitis of the right tibia, varus deformity of the right tibia, tangential defect of the right tibia, right leg shortening to 2.5 cm

**Alternative:** disability due to nonsupport ability of the leg

**Cost of treatment:** 492 204 UAH (\$19 807)



**Volodymyr, 45 years, soldier of the 43rd Separate aero mobile brigade**

**Diagnosis:** Unstability of knee joint, rupture of cruciate ligament of the knee joint

**Alternative:** disability because of dysfunctional knee joint, arthritis

**Cost of treatment:** 87 318 UAH (\$3 274)



**Andriy, 34 years, soldier of the 80th Separate Assault Battalion**

**Diagnosis:** extensive scar-ulcerative defect of rear outer surface of the upper third of the left forearm

**Alternative:** Limitations of the movements of the hands because of the scar, permanent injuries because of damage of the scar tissue upon movements

**Cost of treatment:** 146 145 UAH (\$5 480)

Waiting to be accepted to the project:

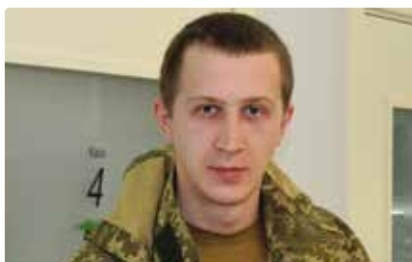


**Vitaliy, 33 years, soldier of the 93rd Separate Mechanized Brigade**

**Diagnosis:** shortening of the right hip to 5 cm, aseptic necrosis of the head of the left femur

**Alternative:** disability (disease of the joints and spinal curvature due to different length of the legs)

**Cost of treatment:** (1 stage, restoration of the right hip length): 383 138,5 UAH (\$14 350)



**Yuriy, 26 years, 130th separate reconnaissance battalion**

**Diagnosis:** skull defect of 3x3 cm, defects of 4th and 5th basidigital bones, nonfunctioning extensor tendon of the 3,4,5 fingers

**Alternative:** defect closure by a metal plate, which significantly reduces the quality of life, disability due to arm dysfunctionality

**Cost of treatment:** 148 167,2 UAH (\$ 5 555)



**Volodymyr, 59 years, soldier of «Donbas» battalion**

**Diagnosis:** wrongly jointed fracture of the left tibia with varus deformity, wrongly jointed fracture of the right femur with varus deformity and ante-curvature; shortening of the right leg up to 2 cm

**Alternative:** disability, arthritis of the joints due to uneven load on feet

**Cost of treatment:** 205 467 UAH (\$7 704)

Waiting to be accepted to the project:



Oleksiy, 34 years, intelligence man

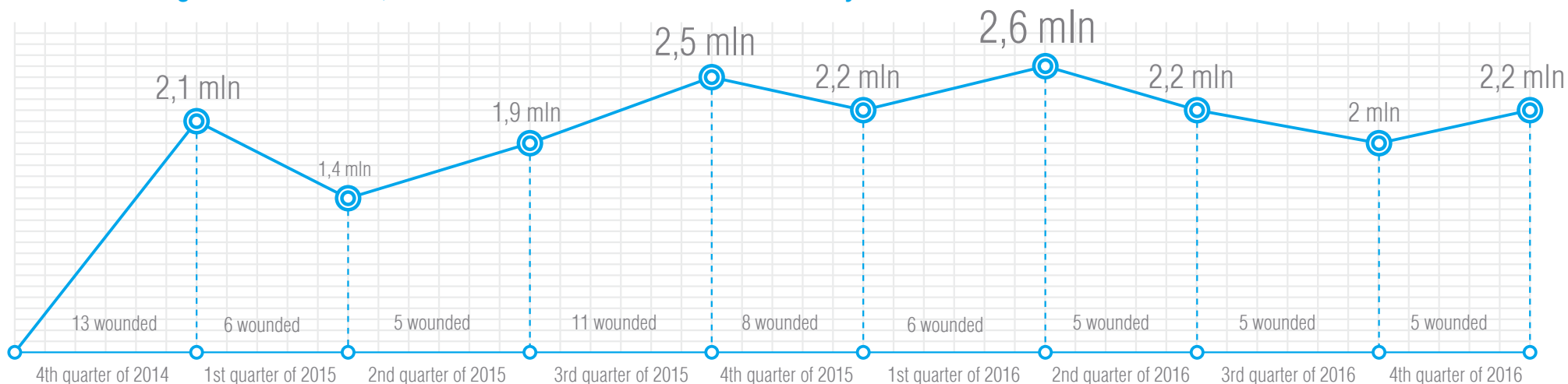
Diagnosis: defect of the skull and the pachymeninx of 5x5 cm

Alternative: defect closure by means of metal plate, which significantly reduces the quality of life

Cost of treatment: 244 011 UAH (\$8 984)



66 wounded fighters were saved, 20 million of UAH of the funds of Tax Payers were saved



### our Philanthropists:

- Caring people from around the world
- Organizations and Consolidations:



Життя  
з надлишком  
Міжнародний благодійний фонд  
<http://keeplife.org>



Нововолинська  
міська рада

Electrolux

INTERPIPE

WEIDMANN



To receive treatment the fighters get help from:

Approximately 20 volunteers

### TOP 3

Olga Dombrovska.....(Odesa)  
Natalia Zavadzka.....(Irpin)  
Iryna Kurylenko.....(Kyiv)

3 civil organizations

Soldiers' mothers  
of Novovolynsk



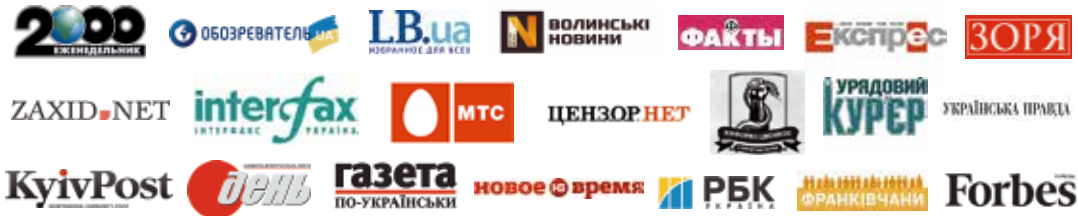
Всеукраїнський  
Альянс Бійців та Волонтерів АТО

3 of 50 military hospitals  
and big hospitals

### TOP 3 doctors

Artem Besspalenko  
Serhii Sapa  
Kostiantyn Pendrakovskyi

### More than 80 publications



### More than 70 topics



### Top 3 topics



STB Chanel: No amputation, but saving



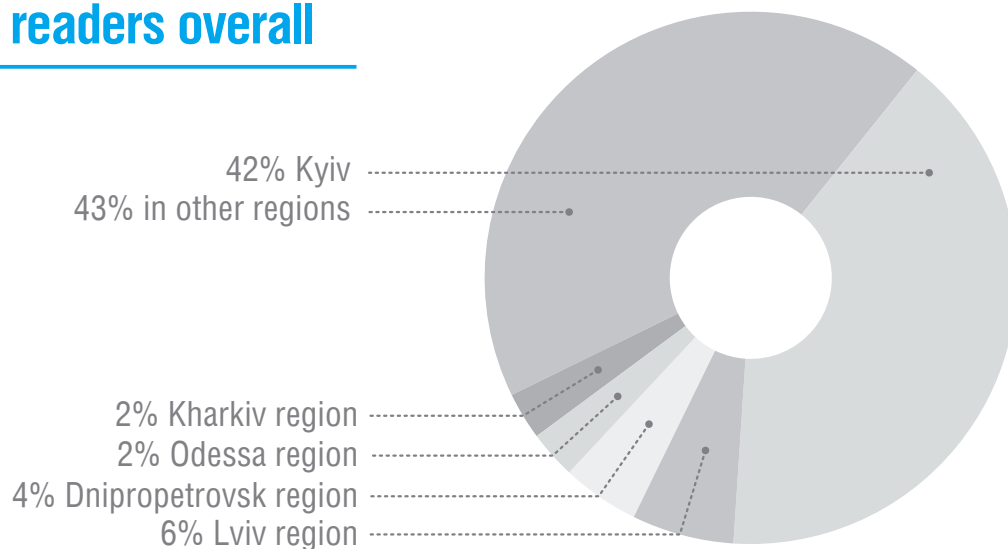
Novyi Kanal: a year ago these soldiers were under threat of legs amputation



Radio Svoboda: Why the Ministry of Healthcare of Ukraine keeps blocking bioengineering rehabilitation of ATO soldiers



## 4 000 readers overall



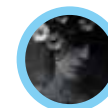
## Top 10 readers



Oksana  
Makarenko



Liudmyla  
Tresh



L'ubica  
Kotmónikovó



Serhiy  
Abramov



Vita  
Zueva



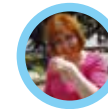
Loki  
Oskorei



Bohdana  
Goretska



Elena  
Ivanchuk



Tetiana  
Koshkina



Larysa  
Melnyk

## Top 3 posts:



Biotech–rehabilitation of the injured

The wounded in the ATO military operations are provided with the free of charge and highly technological treatment of severe limb bones traumas, to which traditional medicine applies amputation and prosthetic appliances.

👍 80 thousands of views



Let us save the hero from amputation!  
We are asking for maximum repost!

The 31–years old Oleksii, a fighter of the Pravyi Sektor Voluntary Ukrainian Corps was wounded in the winter of this year near the Donetsk Airport. The hero was being treated in state hospitals and military hospitals with his shattered with splinter leg more than a year and a half. However, due to multiple complications, his condition only got worse.

👍 60 thousand of views



TRK–UKRAINA Chanel: Ukrainian medical workers learned how to restore damaged bones and cartilage tissues with the help of stem tissues.

Moreover, in the future they plan to restore whole parts of liver, kidneys and even eyes!  
What is needed for that and what has already been accomplished is known to Nataliia Zamorska.

👍 15 thousand of views

## We express our gratitude to!

Medical personnel and biotechnologists of the ilaya company  
Ukrainian Center of Volunteers "People's Project" and its founder David Arahamiya  
Charity Fund "Abundant Life" and its leader Evgeniya Bilan

### Volunteers from all over Ukraine:

Olga Tkachenko (Kyiv)  
Iryna Kurylenko (Kyiv)  
Natalia Zavadaska (Kyiv)  
Oksana Ahunova (Kyiv)  
Iryna Kravchuk (Kyiv)  
Victoriya Krotova (Odessa)  
Tetiana Polyanska (Odessa)  
Olga Dombrovska (Odessa)  
Iryna Ivaneyko (Dnipropetrovsk)  
Valeriya Dubova (Lviv)  
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